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Membership correspondence to Dr. Harold M. Camp, Monmouth, Ill.

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Contributors will submit all copy for publication typewritten on standard size paper and double spaced. Copy not complying with this rule will be returned, if convenient.

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Editorial

ILLINOIS STATE MEDICAL SOCIETY HAS ENTHUSIASTIC SEVENTY-EIGHTH ANNUAL MEETING

Adjournment on May 11 of the seventy-eighth annual meeting of the Illinois State Medical Society closed one of the most varied and enthusiastic conventions of the organization. Even the large registration failed as an accurate index of the much larger attendance, as the diversified clinics proved such a lure to many visiting physicians that the statistical necessity of registration was overlooked.

Scientifically speaking all papers and discussions were of an extremely high caliber. As all programs were paralleled by a running series of clinics the benefits accruing from the convention were manifold. Clinic attendance showed indubitably clinic popularity.

A great mass of important business, of which a large share was constructive, was disposed of by the House of Delegates. Especially poignant were the reports of elected and of appointed committees that were presented and discussed before the House of Delegates and that will be published in full in the July issue of the ILLINOIS MEDICAL JOURNAL. Readers are asked to peruse these reports carefully as they will be found to yield much that is inspirational and cogitative.

The annual meeting for 1928 of the Illinois State Medical Society, though now a matter of history, will not be forgotten in many years. The program was carried out as planned. Many who were present stated that the clinics were as fine as could be seen anywhere at any time. The scientific programs likewise went according to their schedule and were excellent. The exhibits it is believed were the most quantitative and qualitative that any State Medical Society has ever shown at an annual meeting. The commercial exhibits were carefully selected; only

reliable and strictly ethical concerns were permitted. Those in attendance at these commercial exhibits were unusually courteous and anxious to show their products, while at the same time they were not insistent; nor critical of their competitors.

The Scientific exhibits were remarkable and so worthy of careful consideration that it is regretted that every member of the Illinois State Medical Society could not have examined this wonderful display. Dr. J. P. Simonds, who had charge of this work is to be commended for his efforts and for the time spent in working out plans for these exhibits. Management and employees at the Stevens Hotel were more than cordial and demonstrated an unusual type of cooperation in arranging the various details of the meeting from the hotel standpoint. John F. Bowman, convention manager of the Stevens hotel, deserves special encomium for his valuable assistance and the degree of cordiality shown our members and guests.

The general meetings were well attended. Thursday evening the "Symposium on Medical Economics was very interesting, and it is evident that Medical Societies should pay more attention to these ever increasing problems.

The House of Delegates held the usual two meetings. Work was facilitated at the first meeting on Tuesday evening by having the reports of officers, councilors and chairmen of committees printed in advance of the meeting and distributed to the members of the House so that these essentials could be reported briefly in abstract during the session.

The President's dinner on Wednesday evening was one of the best of the functions. Held in the Ball Room with service unexcelled, the many guests were royally entertained during the dinner. The Chicago Medical Society furnished the entertainment, an unusually good orchestra and a wonderful program adding to the charm of the banquet.

Much credit is due to the General Chairman of the Arrangement Committee, N. S. Davis, and his capable assistants, selected by the Chicago Medical Society.

The scientific exhibit at the annual meeting was the largest ever presented at a session of the state society. The extensive area allotted to this display by the Committee on Arrangements was completely filled. Thirty exhibitors participated in this scientific section. To make any estimate of the number of visitors was impossible, but at practically all times during the day every booth had interested spectators.

The exhibits were varied in character. A large amount of space was occupied by state and city institutions. The State Health Department had an impressive affair in their Mobile Milk Laboratory, as well as in other matters pertaining to public health. The Chicago State Hospital presented most instructive results of occupational therapy in the form of remarkable products ranging from doll houses to rugs and made by the inmates.

A type of water sterilizer frequently used in hospitals was installed by the Department of Health of the City of Chicago with the usual types of water connections. These were shown to be faulty, for infected water drawn from an instrument sterilizer by a temporary vacuum in the supply pipes was admitted to the sterile water. The Municipal Tuberculosis Sanitarium presented an elaborate array of x-ray films and gross microscopic pathological specimens from cases of tuberculosis. Detailed and painstakingly attractive charts and pamphlets illustrated the scope and nature of work being done by the American Medical Association in its several different fields. Less extensive though similar epitomizations of current work were furnished by the American Dental Association and by the Committee on Education of the Illinois State Medical Society. The American College of Surgeons sent in a portion of their Registry of Bone Sarcoma. The Division of Meat Inspection of the Bureau of Animal Industry was represented by an arresting collection of beautifully mounted pathological specimens obtained from cattle and hogs.

Medical schools of three universities had scholarly representation. The Departments of Anatomy, Pathology, Radiology, Surgery and Neuro-pathology of the University of Illinois presented a praiseworthy group of gross specimens, lantern slides in shadow boxes, x-ray films, models, etc. From the University of Chicago the Department of Medicine showed: 1. a series of x-ray films illustrating diagnostic possibilities within the chest with particular reference to the heart; 2. charts and pictures illustrating experi-

mental cretinism of rabbits. The Department of Pathology of the University of Chicago sent interesting experimental work on gall stones and gall bladder and on the concentration of tuberculin by ultra-filtration.

One entire booth was filled with electrocardiograms from the Northwestern University Medical School and Wesley Memorial and Cook County Hospitals. The Department of Anatomy of the Northwestern University Medical School showed a series of notable models of dissections of various parts of the head and neck, and x-ray pictures of the blood supply of different portions of the body. The Department of Chemistry chose to send the results of vitamine deficiencies; the Department of Physiology, the effects of the newly discovered hormone cholecystokinin upon the gall bladder, and other specimens pertaining to the physiology of the gastrointestinal tract. The Department of Pathology presented a group of mounted pathological specimens from the Frederick Robert Zeit Museum of Pathology. Northwestern University Dental School mixed science with humor through cartoons pertaining to dentistry and pictures and specimens of scientific value.

Individual exhibitors were Doctors Henry Schmitz, J. F. E. Laibe, Philip H. Kreuscher, Robert von der Heydt, C. W. Apfelbach, E. R. Sloan and Harold Swanberg.

The following officers were elected by the House of Delegates: President-elect, F. O. Frederickson, Chicago; first vice-president, J. P. Simonds, Chicago; second vice-president, E. P. Coleman, Canton; treasurer, A. J. Markley, Belvidere; secretary, Harold M. Camp, Monmouth.

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Delegates to American Medical Association: G. Henry Mundt, Chicago; E. P. Sloan, Bloomington; T. O. Freeman, Mattoon; Charles J. Whalen, Chicago; W. A. Pusey, Chicago.

Alternate Delegates to American Medical Association: Emmet Keating, Chicago; C. S. Nelson, Springfield; G. C. Otrich, Belleville; S. J. McNeill, Chicago; N. S. Davis, III, Chicago; alternate for Mathew Pfeiffenberger, M. E. Brennan, East St. Louis; alternate for Charles E. Humiston, J. J. Pflock, Chicago.

Section Officers for 1928 and 1929: Section on Medicine—N. S. Davis, III, chairman, Chicago; Frank Deneen, secretary, Bloomington.

Section on Surgery: Earl D. Wise, chairman, Champaign; E. M. Brown, secretary, Chicago.

Section on Eye, Nose and Throat: George F. Suker, chairman, Chicago; Walter Stevenson, secretary, Quincy.

Section on Public Health and Hygiene: E. W. Mosley, chairman, Chicago; J. J. McShane, secretary, Springfield.

Section on Radiology: E. G. C. Williams, chairman, Danville; I. S. Trostler, secretary, Chicago.

Secretaries' Conference: President, W. J. Benner, Anna; vice-president, W. H. Smith, Benton; secretary, I. L. Foulon, East St. Louis.

ILLINOIS EDITORS MAKE USE OF HEALTH ARTICLES OFFERED BY THE EDUCATIONAL COMMITTEE

The newspaper is the one great medium through which the Educational Committee has been able, to a small degree at least, to direct the public back to scientific medicine, not through paid advertising, but through press material on health subjects of interest to local communities. The Committee is constantly gathering material, rewriting, censoring and rechecking material for use in the newspapers.

The Committee works entirely through the

local county medical societies and if they do not wish to use the health column offered by this Committee no attempt is made to interest the local editors. However to date there are eighty-one newspapers using a "Weekly Health Letter" or "Health Topics." Most of these appear over the signature of the local county medical society.

In the beginning there was some question as to whether or not a service such as this would be worth while and satisfactory to physicians. However with a steady growth in the number of papers using the health column and the favorable comments which have been received there is no doubt but that the public is satisfied. Very recently a letter was sent out to the editors and physicians in some communities asking for criticisms or suggestions as to how the service might be made more satisfactory. These replies have been interesting.

"Service could not be improved upon, in my opinion. Articles are clear, well written and cover subject nicely. We feature the service with box head and young and old read it every week."

"We will state that the material has been very satisfactory and we have no criticisms to offer."

"Only a few times have the articles seemed to be propaganda in behalf of the medical profession. We appreciate your service and hope that it will be continued."

"Matter is O. K. in every respect. We like it and use it regularly."

From two physicians came the following comments: "The articles have been excellent and I make it a point to read them over myself that I may be prepared for any questions that might be asked."

"Our paper has published the articles right along. I think the articles first class and have no suggestions to make."

Any county medical society wishing to use this service may have the privilege of rechecking the articles before they are published. The material is sent to editors and no charge is made. The Committee is always glad to adapt material to the needs of a particular community, to prepare articles on any group of subjects suggested, and when given proper local cooperation, to arrange material following the trend of local mortality and morbidity reports, contagious, and other specific health history.

ILLINOIS MEDICAL PRACTICE ACT IS WORKING SATISFACTORILY

The Legislature of Pennsylvania at its recent session had under consideration amendments to their Medical Practice Act. At committee hearings on the bill several misstatements were made relative to the working out of the drugless healer feature of the Illinois law. The secretary of the Pennsylvania State Medical Society, Dr. Walter F. Donaldson, appealed to the editor at various times for information and data which was promptly furnished.

From time to time we have had many requests for information relative to the satisfactory or unsatisfactory workings of the Illinois law.

The following letter sent to Dr. Donaldson is quite illuminating and is printed for the benefit of officers of other state medical societies.

Springfield, Ill., Jan. 21, 1928.

Dr. Walter F. Donaldson,
8062 Jenkins Arcade,
Pittsburgh, Pa.

Dear Dr. Donaldson:

I regret very much that I was absent from the city when your letter of January 9 arrived. Upon my return I looked up as closely as possible the activities of the group upon which I reported in the October ILLINOIS MEDICAL JOURNAL and I am now convinced that there is no concerted movement in the direction as claimed.

Upon reading our law, a copy of which you have, you will notice that provisions were made for just such a thing as the drugless healer is attempting to do in the meeting that was held at the Morrison Hotel, but, of course, they are attempting to find a back door route and are not sincere in making up the deficiency which naturally exists between the amount of time and study that they devote to getting a chiropractor's license, and the amount necessary for an unlimited license.

Our law is working very well here in Illinois. The entire examination is given by a group of five medical men, to which there attached one osteopath and one chiropractor. The osteopath merely gives the examination in osteopathy and the chiropractor gives a like examination in chiropractic. They have nothing to do with the examination along medical lines.

Their grade on chiropractic and osteopathy is averaged in with the medical grades for those

students desiring the limited license. We feel that this system is working very satisfactorily. We only recognize two chiropractic schools, both giving a four years' course of eight months each, according to the law. The osteopathic schools have for some time given a four-year course.

We have been successful in defeating the many dozens of chiropractic and osteopathic bills offered in the last five or six sessions of our Legislature, all attempting to break down our law and liberalize their own standing. The Illinois law is fair to all and we feel that we will have no great difficulty in keeping it intact in its present form, although it is bitterly assailed at each session of the Legislature.

The law itself is not in its original form as we offered it, but essentially it was passed as we desired and as above indicated we feel that it is as good a medical practice act as is on the books today.

The Illinois State Medical Society is unalterably opposed to what some states are adopting, known as the basic science law. In theory it sounds very good; it, however, is surrendering the rights of the medical profession to an initial board of laymen who give the basic examination and if successful the medical man goes to his own board and the different cultists to their respective boards for further examination. We believe the method that we have adopted here in Illinois is quite satisfactory, giving the basic and the professional examination at the same time and allowing the cultists to have a representative attached to the board (incidentally, he is not a MEMBER of the board) to give the examination in the tenets of his own school.

I might add, also, that this Illinois law has been attacked by the cultists on four different occasions and every possible angle has been tested in court, and on each of the four different occasions the Supreme Court of the state of Illinois has held the law constitutional and a fair and necessary safe-guard for the public.

Trusting this answers your letter, and if I may be of any additional help to you please advise, and regretting the necessity of the delay in answering, I am

Yours very truly,
JOHN R. NEAL, M. D.,
Chairman Legislative Committee.

A WORD TO CONTRIBUTORS

The ILLINOIS MEDICAL JOURNAL is proud of the variety, precision and general excellence of its contributions. Members of the Illinois State Medical society, as well as other practical scientific men are generous in yielding the fruit of their brains and their experience, their skill and their research for general dissemination through the columns of the ILLINOIS MEDICAL JOURNAL.

Many mechanical restrictions are imposed upon the preparation of copy for the printer, in accordance with contracts maintaining wherever publications are issued. Clear copy, on paper of good weight is a paramount necessity. This is a requisite of composing rooms all over the land. The days have gone by when copy such as Horace Greeley sent out will be accepted in the modern composing room.

Strange as it may sound, many men and women of brilliant minds and wide knowledge seem not to know that copy for the printer *must be written on one side only of the paper.*

A successful periodical must also be careful about reprints. Original matter is greatly desired; in fact, is necessitated. Manuscripts are always welcomed. Perhaps a few words may not be amiss at this time, as to some rules by which it is requested that contributors shall be guided.

It is expressly understood that articles contributed to the ILLINOIS MEDICAL JOURNAL have not been offered and, if accepted, will not be offered to another journal for prior or for simultaneous publication. No objection can be raised for subsequent reproduction. It is believed that reprinting or simultaneous reproduction of papers in readily accessible journals in a given field is professionally unnecessary, bibliographically undesirable and economically wasteful. If a contributor has a paper printed elsewhere subsequently to its appearance in the ILLINOIS MEDICAL JOURNAL (excepting a volume of society transactions), due credit must be given for original publication. The editor relies upon all contributors to conform to this rule.

Manuscripts should be typewritten, double spaced, and only clear verified copies presented. Kindly do not send carbon copies. This is an objection based on mechanical restrictions and composing-room demands for legible copy. The

name and address of the author should appear under title of the paper. Literature cited should be assembled at the end of a manuscript in numerical order and should be numbered serially. These bibliographic items in the list should be referred to in the text by numerals in parentheses corresponding with the sequence numerals in the list. Each item in this reference list should consist (in this order) of the (a) numeral indicating its sequence in the list, (b) name of the author, (c) year of publication, (d) exact title of the paper (or book) referred to, (e) full title of the periodical containing the paper, (f) volume numeral for that periodical, and (g) numeral for the first page (or page specially cited) of the paper.

All illustrations should be submitted in such forms as to admit of photographic reproduction without retouching or redrawing. Marginal letters cannot always be set in type and should, therefore, be written in India ink and regarded as parts of the original illustrations; or, in doubtful cases, the marginal lettering may be inserted temporarily, with lead pencil, for suitable attention by the editor. Unless specific instructions are given by authors, the printer will be requested to determine the degree of reduction that may most suitably be applied in illustration. Reproduction of illustrations can be effected most satisfactorily, as a rule, when the originals are large enough to permit of considerable reduction in the plates prepared from them.

EXHIBITORS' PRIZE WON BY DR. SIEBEL

Dr. J. E. Siebel of Chicago won the exhibitors' prize given by the Sherman Bacteriological Laboratories of Detroit. The prize was a Vaccine Case Outfit customarily awarded to one of the visitors to the exhibit of the G. H. Sherman Laboratories of Detroit.

MEDICAL ADVERTISING SOLICITOR WANTED

The ILLINOIS MEDICAL JOURNAL desires one or more advertising solicitors. Perhaps with medical advertising experience preferred. No guaranteed salary. Compensation on commission basis only. ILLINOIS MEDICAL JOURNAL,

185 N. Wabash Avenue, Chicago, Ill.

SPECIAL DERMATOLOGY NUMBER OF AMERICAN MEDICINE

The May issue of *American Medicine* is a special Dermatology number. It is so comprehensive in scope, and its twenty-seven original contributions, (some by men of international reputation) so varied and practical, that we believe it will be really almost of text-book value to many practitioners.

Copies can be obtained at 50 cents each by writing American Medicine, 18 E. 41st, New York.

BANQUET OF THE AMERICAN VETERANS OF THE WORLD WAR AT A. M. A. MEETING

The military banquet of the Medical Veterans of the World War, section Military Surgeons of the United States, will be held in Minneapolis, commencing at 7 p. m. on Monday, June 11th in the Institute of Art instead of in the Radisson Hotel as previously planned.

ANOTHER PUBLIC HEALTH WORKER LOSES HIS LIFE IN LINE OF DUTY

For more than 20 years the Public Health Service has conducted studies of a very fatal disease which occurs in certain areas in the Western States. This disease is known as Rocky Mountain spotted fever. During the course of the investigations made by the Public Health Service, four workers have lost their lives from the disease, contracted in connection with their official duties.

The most recent worker to lose his life from Rocky Mountain spotted fever is A. Leroy Kerlee, who was employed in the Public Health Service laboratory at Hamilton, Montana, as a bacteriologist. He was a recent graduate of the Montana State College, and had been in the Service since September, 1927.

Those who had previously lost their lives in this work are Dr. T. B. McClintic, who died in 1921; W. E. Gettinger, a laboratory assistant, who died in 1922; and G. H. Cowan, a field assistant, who died in 1924.

The warfare of science against disease has its hazards. A. Leroy Kerlee made the supreme sacrifice in the battlefield of the laboratory.

A PHYSICIANS' TOUR OF EUROPE, 1928

The price for this tour, all expenses included from New York back to New York, is $600. Also, as will be noted, it will take six weeks and will visit England, Belgium, Germany, Switzerland, Italy and France with numerous and interesting side trips at the different points visited.

The party leaves for England Saturday, July 7, on the SS. RYNDAM and return from France on the SS. NEW AMSTERDAM, August 15, being due in New York on August 24. Both these ships are well known trans-Atlantic liners, belonging to the Holland-America Line. The steamer accommodations will be tourist third cabin that has proved so popular with professional people. Many people of secure means now prefer this mode of travel because of its comfort, informality and reasonableness. A point well worth emphasizing is the fact that both the steamers which will be used are not now carrying second class passengers and the accommodations which were previously used for this class will be allotted to this party.

The hotel accommodations, although not de luxe, will be of a good, sound type, having in mind the need for comfort, cleanliness and a good cuisine.

En route arrangements will be made for exchange of greetings with the different medical associations and in Germany our hosts will be the German Health Resorts. This Association is showing keen interest in the plans and already the tentative program that they have outlined at Neunahr, Bad Ems, Wiesbaden and Baden Baden, full of sightseeing drives, visits to the different Kursaals, lunches and banquets, will be a noteworthy part of the trip.

A tour manager will accompany the party; will take care of the baggage; will assist the party at the frontiers through the customs formalities; see that reservations are made on the trains, and in fact, relieve the traveler of the necessary but irksome details that are associated with traveling in a foreign country.

Lifsey Tours' experience with physicians' parties has been very extensive, having operated several domestic tours and also the 1927 Medical Economics European Tour, also several parties of lawyers, and are this year conducting their sixth consecutive annual bankers' party in Europe. Therefore, they are well qualified to know the needs of the American professional man.

The low price of this tour should not deter anyone from joining, as Messrs. Lifsey stand on their reputation to give pleasure and satisfaction to those who join the party.

For particulars write Lifsey Tours, Inc., Harriman National Bank Bldg., 257 Fifth Avenue, New York City.

AMERICAN MEDICAL EDITORS' ASSOCIATION

(Founded in 1869)

Present Activities and Past History

With the death of the last President, Dr. Henry O. Marcy, the American Medical Editors' Association became inactive and remained so for five years. At the time of Dr. Marcy's death, one hundred and seventeen editors were on the roster.

Early in January, 1928, the present President, Dr. H. Lyons Hunt, called a meeting of a few of the New York editors to discuss the advisability of reviving the Association. The vote of those present was unanimous that this should be done.

That a need was felt for the organization can best be demonstrated by the fact that not only practically all members of the old Association came in, but over one hundred new members made application, so that today the American Medical Editors' Association is stronger and more powerful than it has been in its entire history.

As the organization swung into power, numerous meetings were held, officers elected and committees appointed to study and promulgate a tentative platform representative of the American Medical Editors' Association. Just how the entire Association will stand on these subjects, will largely depend on the information gleaned on each by the committees appointed.

That the Association is functioning with enormous activity, is shown by the fact that committees have been appointed to study and advocate a stand for the Association on the following subjects: "Medical Journal Endowment Fund." (This is a rather new idea but there seems no reason why medical schools and hospitals should receive endowments while medical journals and those who run them, often at considerable personal sacrifice, should not look

to share in a central endowment fund. Certainly the medical journals constitute one of the greatest forms of medical instruction and teaching in the country and through the profession are of untold value to the health of the nation.)

Committees have been formed to study ways and means of "Standardizing Medical Education" and "Standardizing Medical Licensing Examinations." "Bringing About International Medical Reciprocity." (Four Committees, one in Canada, one in the States, one in England and one in France have already been appointed to study this subject.)

Committees to study Workman's Compensation," "Pay Clinics," "Commercial Laboratories," "Open Hospitals," "Medical Compensation," "Drug Store Prescribing," "Pharmacy and Therapeutic Products," "Electrotherapeutic Apparatus," "Prohibition."

Committees on "Legislation," "Advertising," "Publicity," "Policy," "Public Health," "Medical Economics," and so on, all studying certain questions and working out solutions for the problems involved, for the advancement and elevation of the medical profession and of medical journalism.

The officers of the American Medical Editors' Association are working with might and main for the benefit of its members and deserve their full support through the Journals they edit in advocating the policies the Association stands for.

PAST HISTORY

In 1869, the editors of medical journals in the United States, desiring to cultivate professional courtesies, to facilitate the conduct and general management of their journals, to promote their interests, their usefulness, and make them a still greater power for professional and popular good, and especially to advance the interests of medicine, united together and organized the "American Medical Editors' Association."

The idea originated with Dr. Theophilus Parvin, who at that time was Editor of the *Western Journal of Medicine.* The first meeting was held May 6, 1869, at which time a preamble and articles of association were presented. At this first meeting Dr. N. S. Davis, editor of the *Chicago Medical Examiner* and the father of the American Medical Association, was elected President.

The annual meeting for 1870 was held at Washington, D. C., at which time Dr. Horatio R. Storer, editor of the *Journal of the Gynecological Society,* was elected President, for 1870-1871.

The meetings for the years 1870-1871 were devoted to Committee Reports, et cetera, with the exception of the adoption of a resolution introduced by Dr. N. S. Davis to the effect that "The social, educational and scientific interests of the profession would be greatly promoted by a more complete organization in every state and district in our country, such organization being calculated to not only elicit but diffuse knowledge, and also to afford the most efficient means of promoting concerted action on all important questions of medical education and progress."

For the years 1871-1872, Dr. B. F. Dawson, editor of the *American Journal of Obstetrics* was President, and under his administration a resolution was introduced offering an annual prize of $100 for the best essay on some subject to be decided upon at each annual meeting, the competition to be open to all members of the Society.

Dr. Theophilus Parvin, editor of the *Western Journal of Medicine* and the originator of this Society, was elected President to serve during 1872-1873. Dr. W. K. Bowling, Editor of the *Nashville Journal of Medicine,* served as President 1873-1874. 1874-1875 found Dr. W. S. Edgar, editor of the *St. Louis Medical and Surgical Journal,* serving as President. He was succeeded in 1875-1876 by Dr. A. M. Bell, editor of *The Sanitarium.* This meeting was devoted exclusively to the reading of papers advising a higher standard of requirements for admission to the profession of medicine, the outcome of which was a resolution advocating and advising a three years' course in medicine, and indorsing a preliminary entrance examination for students.

1876-1877, Dr. Horatio C. Wood, editor of *The Medical Times,* was chosen President. He was followed in 1877-1878 by Dr. J. C. Gray of Utica, N. Y., who presented at his presidential address, a paper upon "Lunacy Laws" endorsing and advocating a change of the statutes governing the management of the insane by our public institutions. As the result of the agitation created by his address, many changes were made in

the laws of various states in accordance with the suggestions embodied in his paper.

Dr. William Brodie, editor of *New Preparations,* presided as President in 1878-1879, at which time he presented a paper from "Duty, Scope and Destiny of American Medical Journals," and it is to be regretted that the archives of our Society do not contain a copy of his address, for it would be interesting to know how well he prognosticated the condition existing today, as well as how we have met his ideals of duty and scope. At this meeting a resolution was passed as follows: "We condemn the advertising of nostrums, patented and copyrighted articles in our journals."

In 1879-1880, Dr. S. T. Powell, editor of the *Southern Medical Record,* served as President. For a number of years following this meeting, the Minutes of each session are so incomplete that no facts of interest are obtainable, however, from a few fragmentary scraps in the possession of the Society, we judge the social feature of the Association was paramount.

The records show that Dr. I. N. Love, editor of *The Medical Mirror,* served as President in 1890-1891. Dr. F. L. Sim, editor of *The Memphis Medical Monthly,* 1891-1892. Dr. Frank Woodbury, editor of *The Boston Medical and Surgical Journal,* 1892-1893. Dr. J. C. Culbertson, editor of *The Lancet-Clinic,* 1893-1894. Dr. C. H. Hughes, editor of *The Alienist and Neurologist,* in 1894-1895. Dr. John B. Hamilton, editor of *The Journal of the American Medical Association,* 1895-1896. Dr. Geo. M. Gould, editor of *Medical News,* in 1896-1897. Dr. Hobart A. Hare, editor of *The Therapeutic Gazette,* 1897 and 1898. Dr. Thomas H. Hawkins, editor of *The Denver Medical Times,* 1899-1900. Dr. Alexander Stone, editor of *Northwestern Lancet,* 1900-1901.

It was not until the meeting of 1901, under the presidency of Dr. Alexander J. Stone, that the Society took on any semblance of a regularly prepared program of papers presented.

At the next meeting, Dr. Winslow Anderson, editor of *The Pacific Medical Journal,* was chosen President for 1901-1902. From 1902 until 1907 the history of our Association is within the memory of us all. Through untiring energy and hearty co-operation of Dr. C. E. de M. Sajous (Sajous Encyclopedia) President for 1902-1903; Dr. H. N. Moyer, editor of *Medicine,* President 1903-1904. Dr. Henry Waldo Coe, editor of *The Medical Sentinel,* President 1904-1905. Dr. James Evelyn Pilcher, editor of *Journal Association of Military Surgeons,* President 1905-1906, and Dr. C. F. Taylor, editor of *The Medical World,* President 1906-1907, the membership in the Association was increased from forty-two names to 193 editors, representing 122 medical journals, the best of all the medical journals in both the United States and Canada.

Among the other well-known medical men who devoted themselves to the interests of the Association and the ideals it stood for, serving in the Presidential Chair of the Society, were Dr. T. D. Crothers, editor of *The Quarterly Journal of Inebriety,* 1907-1908. Dr. W. A. Young, editor of *Canadian Journal of Medicine and Surgery,* 1908-1909. Dr. J. MacDonald, editor of *American Journal of Surgery,* 1909-1910. Dr. Walter Wyman, 1910-1911. Dr. Thomas L. Sredman, editor of *The Medical Record,* 1911-1912. Dr. E. A. Vander Veer, editor of *Albany Medical Annals,* 1912-1913. Dr. H. Edwin Lewis, editor of *American Medicine,* 1913-1914. Dr. Edward C. Register, editor of *Charlotte Medical Journal,* 1914-1915. Dr. Geo. M. Piersol, editor of *American Journal Medical Sciences,* 1915-1916. Dr. Geo. W. Kosmak, editor *American Journal of Obstetrics,* 1917-1918. Dr. Seale Harris, editor *Southern Medical Journal,* 1918-1919. Dr. H. S. Baketel, editor *Medical Times,* 1919-1920. Dr. Frank C. Lewis, *International Journal of Medicine and Surgery,* 1920-1921. Dr. Henry O. Marcy, editor *Annals of Anatomy and Surgery,* 1922-1923.

The American Medical Editors' Association took an initiative part in shaping the policy of the medical profession as an organized body and its influence for the elevation of medical standards. The effort to elevate the standard of preliminary education for those desiring to take up the study of medicine. The necessity for a comprehensive list of the names of regular practitioners, with their schools and date of graduation. The state and district organization. Agitation for a three years' course at medical colleges and a preliminary entrance examination for students. Changes in our lunacy laws regarding the handling of the inmates of our pub-

lic institutions. Condemnation of nostrums and patent medicine advertising.

The American Medical Editors' Association was the source from which many reforms for the advancement and betterment of the medical profession sprang, as well as ideas some of which did not take concrete form until nearly forty years after their promulgation.

At the time of going to press for June issue two hundred and fifty of the editors of medical journals in the United States and Canada have become affiliated with the association since the reorganization was started in January, 1928.

The American Medical Editors' Association is capable of wielding an immense influence through activities necessary to correct the evils confronting medical practice in the United States. The field for post graduate education is unlimited.

The proposed activities of the association is shown in the appointment of many committees to study the following subjects:

"Medical Journal Endowment Fund,

"Standardization of Medical Education,

"Standardization of Medical Licensing Examination,

"Bringing about of international medical reciprocity (four committees, one each in Canada, United States, England and France, have already been appointed to study this subject),

"Workmen's Compensation,

"Pay Clinics,

"Commercial Laboratories,

"Open Hospitals,

"Medical Compensation,

"Drug Store Prescribing,

"Pharmacy and Therapeutic Products,

"Electrotherapeutic Apparatus,

"Prohibition,

"Legislation,

"Advertising,

"Publicity,

"Policy,

"Public Health,

"Medical Economics."

The above list of subjects to be studied does not contain a single subject connected with journalism.

MEDICINE IS BEING MADE THE GOAT FOR AN OVERCENTRALIZED GOVERNMENT

Medicine continues to be the woden horse for those hosts of bureaucrats seeking transportation into the very midst of the constitutional rights of American citizens. Lay dictation of the practice of medicine, that most dangerous and yet ridiculous usurpation of the privileges of wisdom by the arrogance of the uninformed, is on the increase and those men of medicine who fight against this encroachment are entering the combat not alone for the preservation of their professional honor, through their upholding of their oath to conserve the public health and welfare but their cognizance of what this usurpation means to the life of the nation. Wise men know and wise men warn unceasingly about the fashion in which national government is becoming rapidly a centralized government, as slowly but surely the states are losing their rights, a loss carrying along with its defection, the loss of the personal rights of individual citizens. A new slavery, worse and more protean than that servitude for the abolishment of which the country ran red in 1861-4, threatens the people of the United States. *The diminishing respect for law and order bewailed in every hall and on every street corner, in every home and every counting house, is a direct result of that weakening of the legislative branch of the government in the popular esteem that comes through the ruling powers placed in the hands of a group of bureaucrats to whom congress has delegated almost czaristic powers.*

This bureaucracy through the kindness of congress has the authorization to write rules and regulations that have all the effect of laws, veritable statutes of control inflicted upon the citizens of the United States, not by their own vote, in accord with the constitutional principle, of "Government for the people, of the people and by the people," but despotic statutory control by a minority appointed group working without the handicap of a vote that expresses the true opinion and mind of the citizens of the United States. This is resulting in what has been the world's greatest democracy treading towards the approach to limited monarchy. Everywhere the condition is menacing. More than anywhere else is medicine under the yoke. Let medicine throw

off the burden both for its own sake and for the sake of the country. Doctor, don't let your profession become another wooden horse of Ilium.

UNIVERSITY OF IOWA PRACTICE OF MEDICINE IN COMPETITION WITH THE DOCTORS OF THE STATE NOT WORKING SATISFACTORILY TO THE PHYSICIANS OF THE STATE

Iowa has been having trouble with corporations and Universities practicing medicine such as brings a blight on the medical profession anywhere. This always results when a University is competing in the practice of medicine with its own graduates, giving a service of a sort at a much lower price than is fair, possible or adequate for proper medical service and not so much to paupers as to persons with ability to pay but an inclination to save.

Herewith is reproduced correspondence exchanged with two Iowa doctors in good standing, Dr. Donald McCrae, Jr., of Council Bluffs, and Dr. Eugene Wolcott of Des Moines. Any man or woman practicing medicine or expecting to do so should peruse carefully this documentary and last months issue of the JOURNAL'S documentary comment that shrieks aloud the true status of this free-University clinic, for the able-to-pay business.

Council Bluffs, Iowa.
March 23, 1928.

Educational Committee,
Illinois State Medical Society:

I am sending your telegram to Dr. W. E. Wolcott, Des Moines, Iowa. He has most of the dope. I fear I am too radical. I cannot see why Iowa City should manufacture a finished product Doctor and expect him to locate in Iowa without starving to death.

DONALD MCCRAE, JR., M. D.

And this from Dr. Wolcott:

March 31, 1928.

Educational Committee,
Illinois State Medical Society:

In reference to your telegram this morning:

I wish to inform you that under separate cover I am forwarding a copy of the Wamsteadt Bill introduced at the time of the last legislation and of necessity sponsored by the State Medical Society. The purposes of this bill as you will note were directed toward correction of abuses which had crept into the administration of the Haskell-Klaus and Perkins law.

You are undoubtedly aware that under the above mentioned law the indigent poor of Iowa are sent to the State University of Iowa at Iowa City. The hospital then bills the State Treasurer's office for the expense in the care of these cases. Through a one-mill levy spread over the taxable property of the State this money is raised and sent to the State Treasurer's office, where it remains until it is vouchered out by the State University.

According to Senator Hogue's report (Director of the Budget) the service rendered by the State University hospital was not properly distributed over the State, in that those counties near the hospital procured much more service than they paid for, while the outlying counties received little benefit. For instance Cedar Rapids and Linn county received a $120,000 worth of medical services for $44,900 paid in taxes. Then another problem was the charging of long distances of simple cases such as tonsils and minor medical cases sent from Sioux City to Iowa City at a tremendous expense. The third problem was that *many people who could well afford to pay found no difficulty in securing free treatment.* Just what per cent. we have been unable to ascertain, but we know many cases from every community in the State.

It seemed that if the money raised by the taxes was kept in the County instead of sent to the State Treasurer's office, a Board of Supervisors would guard more closely and see that trivial cases were not sent such a great distance. It is needless to say that this bill was very strongly sponsored by President Jessup and the Board of Education. It passed the House by a majority but was held up in the Sifting Committee. I have no doubt that if we could have brought the bill to a vote in the Senate that it would have passed.

I would refer you to the last A. M. A. Bulletin and under the subject of "The Care of Indigent Patients" you will find a description by Dr. Thomas Throckmorton, Secretary of the State Society, which sets forth rather closely the situation of our State Medical Society. I would also like to call your attention to the last week's issue of the magazine *"Time."* Under the head of

medicine you will find a description of the program outlined of the Cornell Clinic with a description of the objections of the grouping of several hospitals in New York City, and it goes to say that Johns Hopkins and Chicago are also developing plans for a similar institution as well as refers to the possibility of extending that service to some of the middle western states, mentioning in particular Minnesota, Iowa, Indiana and Wisconsin. There is food for thought in the material referred to. There apparently is some difference of opinion on the part of the Secreary at Iowa City and the members of the State Medical Society in reference to the amount of clinic material used to teach approximately two hundred medical students. The State Medical Society would appreciate information on this subject from your group.

I appreciate that this is a hurried report and somewhat disconnected, and I should be very glad to learn more in detail of the reasons for the inquiry and we would like to work with you if we have problems in common. One point that I do wish to emphasize—that as a member of the Iowa State Medical Society I do not wish to injure in any way the high standing of the Iowa State University College of Medicine, *but we do feel that there is a very definite tendency for commercializing that institution and making it a great commercial center instead of a real teaching institution and a place where our indigent poor may be properly taken care of.*

W. E. Wolcott, M. D.

SOME IDEA OF THE SICK MAN'S GOOSE-STEP AS THE NEAR FUTURE IS LIABLE TO HOLD IT MAY BE GLEANED FROM THE FOLLOWING

Trenchant comment in *"Time"* under date of March 26 deserves reprinting here. What New York has done Chicago always does, and usually goes one step better. What New York and Chicago do, so alas, does the rest of the United States. Some idea of the sick man's goose-step as the near future is liable to hold it—only too liable may be gleaned from reading the following extract. Doctor draw your own conclusions. Perhaps your reflection will produce a protest from you soon at the only place where a protest is worth the weight of a humming-bird's wing—the ballot box. This ballot box stands remember, not only at the polls for commonwealth elections but in the sanctity of your city, county and state medical society as well as in the A. M. A.

Here is the article referred to elsewhere in this issue by a prominent Iowa physician.

The comment in *"Time"* reads:

MOBILIZATION

"The old-fashioned family physician has long since given place to the specialist. Now the specialist is finding place in the medical group. All the ills that flesh is heir to can soon be treated in one great clearing house: The New York Medical Center, towering on the northern tip of Manhattan. Twenty acres are its base, from 165th to 168th Street, from Broadway to the Hudson River; twenty-two stories measure its majestic height; twenty millions of dollars have already gone into its construction and equipment; twenty years it has been planning; in this year of 1928 it stands completed, the greatest monument to medical progress in the world. On this single plot of ground will operate the following hitherto scattered Manhattan institutions:

"The College of Physicians and Surgeons of Columbia University.

"The Presbyterian Hospital.

"The Presbyterian Hospital School of Nursing.

"The School of Dental and Oral Surgery of Columbia University.

"The Vanderbilt Clinic.

"The Neurological Institute.

"The Babies' Hospital.

"The N. Y. State Psychiatric Institute.

"Cripples babies, insane, diabetics, men, women, children suffering from ingrown toe nails, toothache, or an untimely encounter with a taxi, all will come to the Medical Centre. Here everything known about medicine will be centralized with a three-fold purpose:

"(1) To give the bewildered sick man a modern substitute for the family physician.

"(2) To enable the specialist to work with other specialists, co-ordinating his research with the discoveries of his colleagues.

"(3) To train doctors, dentists, nurses, social workers, pharmacists together as a working unit in the presence of situations which will later constitute their life work.

"Seen in mysterious cloudy perspective from the Jersey shore, they rise in squat masses which gradually pile up to an impressive futuristic pyramid. A close-up reveals a compact group of eight skyscrapers, the high flat walls uncompromising in their rectangular simplicity. The Presbyterian Hospital, the Sloan Maternity and Squier Urological Clinics form the main stem of the group. Wings come out starkly at right angles, reminding one a little of the flying buttresses of a cathedral, but they are built for service, not for support. Everywhere the walls are pierced by windows, thousands of windows, which relieve their perpendicu-

lar severity. The skyline, too, is pleasantly broken by the varying heights of the horizontal roofs.

THE IDEA

"Vienna, Berlin, London, Paris, Heidelberg have developed little medical principalities. Harvard Medical School in Boston, Johns Hopkins Medical School in Baltimore, Washington University Medical School in St. Louis, each forms the nucleus of a small group of hospitals. Rush Medical School in Chicago, one of the three oldest in the country, plans an association of hospitals on the Midway. In Cincinnati the Municipal Medical School and Cincinnati General Hospital have fallen into line. The state universities of Michigan, Illinois, Iowa, Minnesota, Wisconsin have taken up the medical centre idea. Somewhat tardy, but by this very delay in a position to profit by all other experiences, certain citizens of New York, with a vigor and vision in keeping with their city's resources, have outdone all other medical establishments.

HISTORY

"In 1921 a Joint Administration Board was formed to develop a complete medical centre. The plan was given a firm foundation by Mrs. Stephen V. Harkness and her son, Edward S. Harkness. For years they had held the tract of land on Washington Heights, once the American League Baseball Park. When the Yankees moved across the river the land fell into disuse. The Harknesses wished to give it to some worthy public enterprise. The idea of the New York Medical Centre was outlined on paper. And the park where Russell Ford once swung a wicked bat, where Harold Chase caught many a man out on first to the cheers of thousands, was given over to doctors and all their delicate works.

EQUIPMENT

"The familiar discomfort and feeling of oppressive sanitation that has so long been taken for granted is no more.

WELCOME

"This regard for the patient as a human being is not limited to the sick room, it extends to the very boundaries of the land. Sick, discouraged, confused, the patient arrives at the hospital. Instead of the dreary delays in dismal waiting rooms, he is now received in a small cheerful office where an expert is ready to pass upon his case immediately. An escort is in waiting to conduct him to the ward best suited for his needs. Meanwhile word is flashed to the clerk of that floor that Mr. John Doe requiring treatment for varicose veins is on his way up in elevator No. 3 and when Mr. Doe steps out there is a friend to greet him by name and help him to bed. The patient's window looks out upon lovely gardens and the peaceful Hudson with the Palisades forming a back drop. Roof gardens, music room, game room, gymnasium contribute toward a mental as well as physical cure.

LAUNDRIES, ETC.

"Only the mechanics of the institution, the gross impersonal processes where efficiency is measured in terms of standardization, are centralized. The enormous laundry can handle ten tons of washing a day, the main kitchen can cook 6,000 meals. Heating, lighting, ventilation, hot water, ice water, sterilization and preparation of bandages, everything that ministers to impersonal welfare has been centralized.

PRIVATE PATIENTS

"The Harkness Pavilion for Private patients occupies the west wing of the hospital. The income from the Pavilion will help run the hospital, and here indeed the atmosphere is that of the most luxurious modern hotel. Each private room has its private bathroom, and many have sitting rooms forming a suite. Fine copies of period furniture, harmonious draperies, papered washable walls, all so treated as to be even more sanitary than tile or marble, create an atmosphere of pleasant ease. *A la carte* menus are provided for those whose desires may dictate their diets, and each patient has an individual locked refrigerator in the kitchen for such dainties as may have been brought or bought. One floor with private elevator has been set aside as a hotel for friends and relatives.

THE BABIES' HOSPITAL

"Which will be in the east wing of the hospital, is still in an early stage of construction. The campaign to raise $1,500,000 for this purpose was started last week by the board of directors and the board of women managers.

GROUP

"By 1929 the Medical Centre hopes to be functioning smoothly for every class of patient, rich and poor, requiring care in bed or in an office, suffering from any disease requiring the attention of a single specialist, or a group, coming as an individual or as part of a community health problem. It will be training medical students, dental students, specialists, public health workers, nurses, social workers, pharmacists, hospital administrators; giving the older men in practice opportunity to keep in touch with new developments; forging in its laboratories new weapons to fight disease. Preservation of individuality applies to hospitals as well as patients. They have agreed upon association without consolidation, co-operation instead of competition, no overlapping of functions, economy of resources by joint action in the purchase of supplies, etc."

A "CATCHING" DISEASE

Patient (calling on family doctor)—Doctor, my son has scarlet fever, and the worst part about it is that he admits he got it from kissing the housemaid.

Doctor (soothingly)—Young people will do thoughtless things.

Patient—But don't you see, doctor, to be plain with you, I've kissed the girl myself.

Doctor—By jove' that's too bad.

Patient—And to make matters worse, as I kissed my wife every morning and night, I'm afraid she will catch it.

Doctor (wildly)—Good heavens! Then *I* will have it, too!"—*Medical Pickwick.*

IF A DEPARTMENT OF EDUCATION IS ESTABLISHED AT WASHINGTON THE WHOLE EDUCATIONAL SYSTEM OF THIS COUNTRY WILL BE THROWN INTO NATIONAL POLITICS. THE POWER WHICH LURKS IN THE DEPARTMENT OF EDUCATION BILL

Iredell Meares (Washington Counsel, Sentinels of the Republic) in the May 1st, 1928, issue of the *Woman's Patriot*, a magazine dedicated to the defense of the family and the state shows the dangers connected with the enactment of a law that would create a department of education with a member in the cabinet. We quote:

The bill to crease a Federal Department of Education (S. J. 1584; H. R. 7) is fraught with dangerous consequences to the cause of education. The proponents of the bill contended before the House Committee on Education that, since the elimination of the hundred-million-dollar appropriation carried in the original Smith-Towner bill, which in part would have been distributed to the States on a 50-50 basis as allotted by the Secretary of the Department, if the department were created, the bill conferred no greater power that now conferred upon the Bureau of Education, the Boord for Vocational Training, and other Federal educational agencies, but consolidated them into a department of education, with a secretary sitting as a cabinet officer, which, if done, would make for greater efficiency, economy, and prestige of authority in the administration of Federal activities in education.

There is a danger, however, which lurks in this bill, not discerned, or, at least not discussed, by its ardent advocates.

The scope and objects of the bill are set forth in Section 8(a). It is provided that:

"In order to aid the people of the several States in establishing and maintaining more efficient schools and school systems, in devising better methods of organization, administration and financing of education, in developing better types of school buildings and in providing for their use, in improving methods of teaching, and in developing more adequate curricula and courses of study, research shall be undertaken in (1) rural education; (2) elementary education; (3) secondary education; (4) higher education; (5) professional education; (6) physical education, including health education and recreation; (7) special education for the mentally and physically handicapped; (8) the training of teachers; (9) immigrant education; (10) adult education; and (11) such other fields as in the judgment of the Secretary of Education may require attention and study."

It is to be observed that the author of the bill, not content with its enumerated objects, as far-reaching and inclusive as he defines them, adds the concluding clause:

"such other fields as in the judgment of the Secretary of Education may require attention and study."

No limitations upon his judgment. Everything is educational which relates to man, his physical or spiritual well-being. No restriction upon the secretary's discretion. He may go far afield upon "such other fields" in adventurous research, unrestrained except by fancy.

SAME POWER AS IN SMITH-TOWNER BILL

The quoted section is exactly as contained in the original Smith-Towner Bill. It was predicated upon an appropriation of $100,000,000. In this bill the appropriation is reduced to $1,500,000. The same objects and the same power are retained in this bill. It is reasonable to expect, if passed and the Department created, that Congress will be urged, and Congress will be persuaded to increase from year to year the appropriations until they may reach the $100,000,000 mark. Experience teaches us that appropriations for Federal bureaus and departments have the habit of rapidly increasing in arithmetical ratio to length of existence. The Children's Bureau started in 1913 with the modest appropriation of $21,936, to reach in 1926 $1,313,000. The Federal Board for Vocational Education started in 1917 with an appropriation of $832,426.82 to reach in 1927 an expenditure of $6,730,305.25, and it is now proposed in Congress to increase it by $6,000,000 more. (S. 1731; H. R. 12241.)

Greater appropriations will be asked for by this Department of Education, if created, in the ensuing years, and urged with all the glittering arguments as to the efflorescent results accomplished and in process of accomplishment so habitual with heads of Federal bureaus and departments who become inoculated with the spirit of self-importance and super-inflamed with visions of the efficacy to well-ordered civilization of their particular work; provided, and this proviso is always suggested, adequate appropriations are made for its ultimate success.

That it is the purpose of the advocates of this bill, which they now argue is merely the consolidation and co-ordination of Federal activities in education, at present conducted by separate bureaus, into one Department of Education, under the direction of a secretary, who will be a member of the President's Cabinet, to obtain in the future larger appropriations is indicated by the admission of Miss Carl Williams, the legislative secretary of the National Educational Association, who stated before a meeting of that association:

"There is a general understanding among educators that Federal aid will be deferred. Our bill in the last several sessions of Congress has been a doubleheaded one. We have decided it is better to make progress in the one direction that is now open. It is inconceivable that the National Educational Association will ever give up the idea of the extension of Federal aid to education."

THE POWER CONTAINED

The proposed act provides in Section 1 thereof, that:

"Section 158 of the Revised Statutes is amended to include the Department of Education, and the provi-

sions of Title IV of the Revised Statutes, as now or hereafter amended, shall be applicable to the Department."

(This reference to Title IV has been brought forward in the Code of the Laws in force December 7, 1925, revised and adopted by Congress, as Section 23, Title V.)

The language of the section mentioned of the U. S. Revised Statutes and incorporated as part of the bill, reads as follows:

"The head of each department is authorized to prescribe regulations, not inconsistent with law, for the government of his department, the conduct of its officers and clerks, the distribution and performance of its business, and the custody, use and preservation of its records, papers and property pertaining to it."

Now, the Supreme Court of the United States has held that where Congress confers upon departments, commissions or bureaus, which it creates, the power to make rules and regulations to carry into effect the objects of their creation, such rules and regulations when made have the effect of law.

"Regulations prescribed by the President and by the heads of departments, under authority granted by Congress, may be regulations prescribed by law, so as lawfully to support acts done under them and in accordance with them, and may thus have, in a proper sense, the force of law; but it does not follow that a thing required by them is a thing so required by law as to make the neglect to do the thing a criminal offense in a citizen, where a statute does not distinctly make the neglect in question a criminal offense."

(*United States vs. Eaton*, 144 U. S., 677; *Caha vs. U. S.*, 152 U. S., 211.)

With the power conferred and appropriations provided, the secretary of the proposed Department of Education could make rules and regulations, set forth the conditions upon which he would allot aid, financial or otherwise, to the several States, educators, schools or colleges, and such rules and regulations would have the effect of law. He could prescribe rules for what he deems better methods of organization, better administration and financing of education, better types of school buildings and their use, better methods of teaching, curricula and courses of study, all of which are within the scope of the proposed department, upon condition that the recipients of his aid shall conform to his rules and regulations. Is it a matter of contributing to the increase of teachers' salaries? He could prescribe the preparation and qualification of the recipients. Is it a matter of helping finance a school building? He could prescribe the plans and specifications and appoint the supervisor of construction. Is it a matter of financial aid to State education? As a condition, he could prescribe the curricula, course of studies, and the school books. He could decline to aid in any manner any State that separated the schools for negroes, Mongolians and white children. In fact, if he is to extend aid to the States, he can become, by reason of the influence he can exert in the so-called cooperation and distribution of funds, almost the dictator of local or State education. He would become, by the force of natural tendency, the dictatorial head of standardized education for the United States. We don't want standardization in education. We don't want automatic instructors, like modern graphophones, and we don't want machine-made children, like machine-made clothes, but we do want in both personality, initiative and individuality, which can be best developed by each State retaining control of its own educational system.

ARGUMENTS OF ADVOCATES

It was argued by the advocates of this bill, at the hearing before the House Committee, that a Department of Education would give prestige and receive respect for research work that cannot be commanded by the Bureau of Education. Every educator who spoke for the bill commended the splendid work now being done by the Bureau of Education and approved the work of the Board of Vocational Training; however, they contended that this work is now "submerged." The present Chief of the Bureau of Education, who was highly approved by these advocates, views it differently. He said in 1925:

"It is not so significant whether this educational unit is called a Bureau or Department of Education, or whether the head of it is called Bureau Chief or Cabinet Secretary, as it is that there shall be a continual development of efficient service by this agency as a clearing house for education."

The deeper submerged the better, for the billows of political agitation will roll on without affecting or disturbing its diligent research and concentrated work in the still depths of its isolation.

It is self-evident, at least to the layman, that if this department is created and the secretary is made a Cabinet officer, the whole educational system of this country will be thrown into national politics. Every time the Secretary of Education is to be appointed, educators throughout the country will be advocating some particular man or men among their class and the President will be under the necessity, in the selection of his Cabinet, to be largely governed by political exigencies. The Secretary of Education, if human, would have the opportunity to build up in support of himself, a political machine throughout the United States, and we have had some conspicuous illustrations of the fact that Cabinet officers may be human—badly human.

The layman, like the writer who attended these hearings, must have been deeply gratified at the wonderful progress in education within the past two decades and the great reduction accomplished in illiteracy, as proclaimed by the educators who spoke, either for or against the bill, before the Committee. It would seem, as a matter of every-day common sense, that if education is making today marvelous progress and if today the situation is entirely satisfactory, there is no justification of experimentally subjecting it to the interference or supervision of a Department of Education,

about the wisdom of establishing which the ablest educators of the country are divided in opinion.

CONCLUSION

Every parent should feel responsible for the education of his child, every community for the education of its children, and every State for the maintenance of a proper educational system. This bill would relieve them all of their sense of responsibility and would subordinate their activities either to the dictation or undue influence of a central power at Washington. It would be blighting and destructive to the cause of education. It would subject it to political influences. It would create an educational autocracy at Washington. It would inaugurate a centralized power of education to the detriment of local government. Jefferson has said that monarchs and despots have reared their dynastics upon the confidence in them of the people. The liberties of the people, he declared, will be preserved only by contant jealousy on the part of the people in conferring power upon their rulers. We should be exceedingly jealous in conferring power upon any centralized authority in matters of education. The desideratum of the American people in matters of education, as in other things, is to be free from over-much regulation and let alone in their individual and community activities. The proposed Education Department Bill would be an encumbrance upon the present educational situation. It is useless. It is needless. It is dangerous.

THE PANEL SYSTEM IN ENGLAND UNDER COMPULSORY HEALTH INSURANCE

After Fourteen Years of Unhappy Experience, Both Patients and Doctors Find the System Very Unsatisfactory

Public Dissatisfaction Has Resulted in an Enormous Increase of Quackery and Cultism

From a recent London letter to the *Journal A. M. A.*, we abstract the following:

Against the evils of state medicine, the public has frequently and wisely been warned again. As an example the "panel system" of England has invariably been held out to demonstrate the glaringly unsatisfactory results of modern state medicine. But many people do not fully appreciate what is meant by "state medicine," nor what the "panel system" comprises.

"State medicine" may be defined generally as the extension of governmental activity in the health field through creating compulsory health insurance, or free and pay clinics; or distributing physicians; or seeking complete control of medical practice as a public utility.

Lloyd George's national health insurance act of 1911 in England is better known in America as the "panel system." This legislation provides that every person with an income of less than two hundred fifty pounds (approximately $1,200) must carry health insurance with the government. The list of the names and addresses of doctors who have undertaken to treat "insured persons" is the "panel"—officially known as the medical list.

In 1924, each insured person paid an annual fee to the government of eleven shillings (approximately $2.64). This capitation fee continues until the end of 1927. More than fifteen million persons are compulsorily insured in the British Isles, and after fourteen years of unhappy experience, both patients and doctors find the system very unsatisfactory. Some of many reasons for the failure of state medicine in England are:

1. It is an enormous expense to the government.
2. It encourages perfunctory, inferior service and inadequate medical treatment. The doctor receives compensation whether his services are good, bad or indifferent. This is a terrible situation for the people.
3. It develops large numbers of neurotics who run to the doctor with every conceivable ailment, whether real or imaginary. It encourages costly malingering.
4. Public dissatisfaction has resulted in an enormous increase of quackery and cultism.
5. The people lose the right of the individual to select their own doctor. This one item should condemn state medicine for the United States. Individual choice of a physician is an inalienable right.
6. It undermines medical initiative, does not recognize merit, forgets the stimulation of medical research and tends to paralyze medical progress.
7. It discourages the ambitious youth from the study of medicine and so leaves the field to men of inferior talent.

In America we cannot afford to retard the progress of medical knowledge by government control. A scheme, such as the "panel system" is filled with restrictions, and swamped with intolerable "red tape" and graft. We dare not undermine the morale of the forces fighting against disease by placing the control of the sick in the hands of politicians. Public health must not be used as a pawn in a political game. Any system that will standardize sick people into herds and classes is a perilous experiment, inimical to public welfare.

A SPINE SONG

Call a doctor in the night time
If your pulse is acting queer,
For with him it's just the right time,
To remove your leg or your ear.

CHORUS

For it's always fair weather
When specialists get together,
With your lungs full of ether,
And your family full of fear.

Oh, it's always fair weather,
When specialists get together,
With a spine on the table,
And a good saw ringing clear.

—*Med. Herald & Physiotherapist.*

MAKE A. M. A. HOTEL RESERVATIONS EARLY, MINNEAPOLIS, JUNE 11-15

Those who expect to attend the annual session of the American Medical Association to be held at Minneapolis, June 11 to 15, will do well to make hotel reservations as soon as possible in order to secure satisfactory accommodations for themselves and to make it easier for the Subcommittee on Hotels of the Local Committee of Arrangements to provide accommodations for those who may be compelled to delay making reservations. The chairman of the Subcommittee on Hotels, Dr. F. G. Benn, 1114 Donaldson Building, Minneapolis, reports that there is an abundance of room in good hotels and that satisfactory accommodations may be secured through that committee.

The Committee on Hotels of the Local Committee of Arrangements desires to assist you in making your room reservations and has compiled a list of hotels, which has been approved by the Minneapolis Civic and Commerce Association and the Hotel Association.

Hotels at Minneapolis

Names and Addresses	Single—Without Bath	Single—With Bath	Double—Without Bath	Double—With Bath
Andrews	$2.00	$2.50	$3.00	$4.00
Hennepin Avenue and Fourth Street	–2.50	–6.00	–3.50	–7.00
Bedford	....	$1.50	....	$2.00
1501 La Salle Avenue		–3.00		–4.00
Buckingham	....	$2.50	....	$4.00
La Salle Avenue and Fifteenth Street		–3.50		–6.00
Camfield	$1.25	$1.50	$2.00	$2.50
Marquette Avenue and Eighth Street		–1.75		
Curtis	....	$2.00	....	$3.00
Tenth Street and Fourth Avenue S.		–3.00		–6.00
Dyckman	....	$2.00	....	$4.00
Sixth Street between Hennepin and Nicollet Avenue.		–5.00		–7.00
Elgin	$1.00	$1.50	$2.00	$3.00
Hennepin Avenue and Eighth Street			and up	and up
Francis Drake	....	$2.50	....	$3.50
Tenth Street and Fifth Avenue S.		–5.00		–6.00
Hastings	....	$1.75	....	$2.50
Twelfth Street and Hawthorne Avenue		–4.00		–5.00
Leamington	....	$2.50	....	$3.50
Third Avenue S. at Tenth Street		–4.50		–6.00
Majestic	$1.00	$1.50	$1.75	$2.50
Seventh Street and Hennepin	–1.50	–2.00	–2.00	–3.00
Maryland	....	$2.00	....	$3.00
La Salle Avenue and Grant Street		–2.50		–3.50
Nicollet	$2.00	$2.50	$3.50	$4.00
Washington at Hennepin and Nicollet Avenues		–6.00		–8.00
Oak Grove	....	$3.00	....	$4.50
230 Oak Grove		–3.50		–5.00
Pauly	$1.00	....	$1.50	....
Nicollet Avenue and High Street	–1.50		–2.00	
Plaza	....	$2.50	....	$3.50
Hennepin Avenue and Kenwood Parkway		–6.00		–6.00
Radisson	$2.00	$3.00	$4.00	$5.00
Seventh Street between Hennepin and Nicollet Avenues	–2.75	–6.50		–30.00
Rogers	$1.25	$2.00	$2.50	$3.50
Nicollet Avenue and Fourth Street	–1.50	–2.50		–5.00
Russell	$1.25	$1.50	$2.00	$2.50
16 South Fourth Street	–1.50	–2.50	–3.00	–4.00
Senator	....	$2.00	....	$3.00
314 South Eighth Street		and up		and up
Sheridan	$1.50	$2.50	$2.50	$3.50
Marquette Avenue and Eleventh Street	–2.00	–3.50	–3.00	–5.00
St. Regis	....	$1.50	....	$2.50
Marquette Avenue and Ninth Street		–3.00		–4.00
Vendome	$1.25	$1.75	$2.00	$3.00
Fourth Street between Hennepin and Nicollet Avenues	–1.50		–2.50	–3.50
West	$1.50	$2.00	$2.50	$3.00
Hennepin Avenue and Fifth Street	–2.00	–4.00	–3.00	–5.00

TRAIN SCHEDULE FOR THE A. M. A. MEETING

Chicago & North Western Railroad

The Chicago & North Western Ry. has been selected as the official route, Chicago to Minneapolis, for the American Medical Association Convention by the Chicago Medical Society and De Luxe Special Train will be operated from Chicago 6:30 P. M., Sunday, June 10, arriving Minneapolis 7:35 A. M., Monday, June 11. Special train will also be operated, Chicago to Minneapolis, for accommodation of the Medical Women's National Association, leaving Chicago 10:00 P. M., Saturday, June 9.

Complete service of the Chicago & North Western Ry., upon which extra equipment will be provided during the A. M. A. convention, includes the following trains:

	The Viking (a)	Arrowhead Limited (b)	North Western Limited (a)	North American (a)
Lv. Chicago	10:30 A.M.	5:40 P.M.	6:30 P.M.	10:00 P.M.
Ar. Min'polis	9:35 P.M.	7:35 A.M.	7:35 A.M.	10:05 A.M.
	(a)	(b)	(a)	(a)
Lv. Min'polis	7:35 A.M.	10:45 P.M.	8:00 P.M.	6:40 P.M.
Ar. Chicago	7:30 P.M.	11:30 P.M.	8:35 A.M.	6:50 A.M.

(a) Via Milwaukee.
(b) Via Madison.

Various other organizations and societies affiliated with the American Medical Association are also arranging for special trains and special car parties via the Chicago & North Western Ry. to Minneapolis direct, also via Rochester, Minn., making short stopovers at the world's largest clinic. Special sleeping car service is being arranged locally between Rochester and Minneapolis during the A. M. A. convention for the accommodation of members who may desire to stop over at Rochester on either going or return trip.

Chicago Great Western Railroad Company

Special Train Service to Minneapolis

On Sunday night, June 10, there will be a special

train service over the Chicago Great Western to Minneapolis for the exclusive use of members of the Illinois Medical Association who will attend the seventy-ninth annual convention of the American Medical Association, to be held at Minneapolis, June 11th to 15th.

If you are planning on attending the convention, a most cordial invitation is extended to you, your family and friends, to join the Illinois Medical Association special train delegation. A very pleasant trip is assured, not only for your travel comfort, but also for the opportunity you will have to meet and visit with friends on the train en route to the convention.

The special train will be a de luxe all-steel, all-Pullman train consisting of the newest type of equipment, including club car, observation-lounge car, and dining car serving dinner on leaving Chicago and breakfast before arrival in Minneapolis.

Train Schedule

Leave Chicago 6:30 P. M., Sunday night, June 10.

Arrive Minneapolis 7:50 A. M., Monday morning, June 11th.

The Chicago Great Western Railroad is the only road with direct service between Chicago and Minneapolis with optional routing via Rochester with no additional cost, and is best situated to serve the members of our Association.

In addition to the special train service this road will provide between Chicago and Minneapolis, it operates the fastest and best service between Minneapolis and Rochester. Its running time between these two points is two hours and fifty minutes. During the convention regular and special coach and parlor car service and overnight Pullman service will be operated.

Location of Parking Space of Special Trains, at Minneapolis and Rochester

Special A. M. A. trains operated over the Chicago Great Western will be parked six blocks from the loop in Minneapolis. Street car, bus and taxi service will be available to members.

In Rochester special cars and special trains of the Chicago Great Western will be parked two blocks from the heart of the downtown district.

Reduced Fares

Purchase one-way ticket to Minneapolis, taking a certificate receipt from the ticket agent. Be sure that your ticket is routed over the Chicago Great Western from Chicago to Minneapolis. The certificate receipt will enable you to secure return ticket at half fare.

Write to E. W. Ireland, General Agent Passenger Department, Chicago Great Western R. R., Room 803, 166 West Jackson Blvd., or phone him, Wabash 2661.

CHICAGO, MILWAUKEE & ST. PAUL RY.

Make the trip to the A. M. A. Convention with congenial associates. Arrange to meet your friends in Chicago on June 10, then take the new *Pioneer Limited* of the Chicago, Milwaukee, St. Paul and Pacific R. R. (The Milwaukee Road), leaving from the New Union Station at 6:30 P. M. Standard Time (7:30 P. M. Daylight Saving Time), that same evening for Minneapolis. An entire section of this magnificent train will be reserved for the Medical Profession. It is a treat to ride in this "crack" limited with its latest type luxurious equipment, the inviting and cozy club and observation cars, its attractive furnishings and attentive service.

The *Pioneer Limited* is equipped will all the latest and modern mechanical devices for the comfort and convenience of patrons, including all new equipment equipped with roller bearings, providing for smoother and easier riding, friction buffers that eliminate jerking and jarring, train moving silently and smoothly whether starting, stopping or racing along at high speed. Notable among its other exclusive features are coil spring mattresses in all berths—the last word for restful sleep, a distinctive feature which is not found on any other railroad. Cozy individual bed rooms with real beds, deep box springs and soft mattresses and a number of other distinctive features.

The $1.50 table d'hote dinner served on this train is noted for its excellence by people of distinction and cannot be duplicated in any of the leading Chicago hotels for two or three times the price charged.

If you have ever traveled on the *Pioneer Limited* you will probably want to make reservations for the trip now and if you haven't you can get full information by sending the coupon printed with our advertisement in this issue, also details on the all-expense tours to Yellowstone.

The *Milwaukee Road* also operates other fine fast trains at convenient hours both for day and night service:

The Day Express leaving the new Union Station at 8:15 A. M., arriving Minneapolis 8:55 P. M., the *Columbian*, leaving at 10:30 A. M., arriving Minneapolis 11:05 P. M., the *Pioneer Limited* leaving Chicago at 6:30 P. M., arriving Minneapolis 7:55 A. M., the *Twin Cities Special*, leaving at 9:00 P. M., arriving 9:05 A. M., and the *Olympian*, our Seattle deluxe train leaving at 11:30 P. M. and arriving Minneapolis 11:50 A. M.

For Chicago Daylight Saving Time 1 hour should be added to the above figures.

Returning from Minneapolis there is the same wide choice of frequent and popular train service: The Day Express leaving at 7:35 A. M., into Chicago 7:55 P. M., the *Columbian* leaving at 8:10 A. M., arriving 8:45 P. M., the *Fast Mail* leaving at 6:30 P. M., arriving 7:00 A. M., the famous *Pioneer Limited* leaving at 8:00 P. M., arriving Chicago 8:35 A. M., the *Olympian*, deluxe Coast train leaving at 8:50 P. M., arriving Chicago 8:59 A. M., also the *Chicago Express* leaving Minneapolis 10:45 P. M., arriving at the New Union Station, Chicago, 11:25 A. M., the following day.

For Chicago Daylight Saving Time 1 hour should be added to the above figures.

This wide choice of frequent deluxe train service offers you the greatest choice of trains leaving at convenient hours and reservations on either of the trains indicated in either direction can be readily made by filling out coupon appearing in our advertisement in this issue. Send for the feature booklet on our *Pioneer* and let us mail you the deluxe all-expense tour information pamphlet.

Correspondence

BEG YOUR PARDON

To the Editor:

I am quite sure you will accord opportunity and space to correct the statements, apparently reached through mis-information, relative to the Michigan State Medical Society, State Medicine, Legislation and the University Hospital as published in your Editorial Columns of the May issue. If this condition did exist, as your editorial states, then "To the bystander at large" the conclusion might be justified that we "were well on our way to a program of socialized and State Medicine." Happily your information is *mis-information* as is also your statement that "this is due to the control of the machinery of the State Department of Health, and the interference by the University Hospital, etc."

To confirm that these are erroneous statements and mis-represented facts permit me to submit the following official statement:

(A) Our State Commissioner of Health, though president of our State Society some ten years ago, holds no office in our Society other than being Chairman of our Legislative Commission. This Commission is studying the medical laws of this country for the purpose of drafting a new Medical Practice Act for presentation to our next Legislature. It is supposed that the proposed act will include provisions that will better safeguard the welfare of the people and our profession. Other than this no office in our Society is filled by a member of the State Health Department.

(B) Our State Commissioner of Health from the day he assumed office has not instituted any health measures or promulgated any rules or regulations without first submitting them to the Council of our State Society for approval.

(C) No Clinics are conducted by the Department of Health that are not sponsored and participated in by the local County Medical Society.

(D) The Commissioner has appeared before many of our County Societies and states that his department is not and will not be concerned with the practice of medicine and in all preventative health measures he is keenly eager that the private individual physician shall administer the immunization serums and requests the doctors to so protect their patients. He reiterates that he will cooperate with the doctors as far as they permit cooperation.

Our Commissioner of Health is not dominating the profession of Michigan or the State Society. Before appointing him, our Governor consulted with officers of the Society and the Society's endorsement was filed with the Governor. For the first time in many years we feel that we have a Commissioner of Health possessed of outstanding qualifications. Qualifications that are reflected in a well earned reputation and ability as a health officer—a reputation extending throughout the country and to which we point with much pride. He is cooperating with the profession as has never been done before and has firmly convinced us that he is intensely sincere in his conducting of the Department to not ignore the inherent rights of physicians. We are convinced that State Commissioner of Health, Dr. Guy L. Kiefer, is not a proponent of State Medicine.

Legislation: Your editorial cites some eight bills related in degree to medical practice in Michigan and implies that they were enacted with design to establish state medicine. Again I advise—We have a Committee on Legislation composed of members not affiliated with any health office or state department. During our last legislature this Committee was on active duty in Lansing. In addition our President, Secretary and Executive Committee of the Council made frequent trips to Lansing, held numerous interviews with members of the Legislature, the Governor, presiding officers and Committee Chairmen. Further we had an attorney, paid for his time and services, who remained in contact during the entire session of the legislature. In addition, our then President, Dr. J. B. Jackson and our State Secretary formed a Central Committee composed of two representatives of the following state agencies concerned with health measures: State Dental Society, State Tuberculosis Society, State Nurses Association, State Charities Association, and the Red Cross for the purpose of recording the combined influence of the members of these organizations for or against proposed legislation. No bill was introduced, but what a copy was secured, the bill referred to our attorney and a close study of its provisions was made. In several instances bills were caused

to remain buried in committees. A Chiropractic and Osteopathic bill was defeated. Legislative measures were reported from time to time in the JOURNAL. Thus did the Legislative Committee, Executive Committee, Attorney and officers scrutinize the activities of our last legislature. We knew of the enactment of the so-called eight bills referred to. When one reads these bills in their entirety and notes the provisions in detail we do not believe they can be construed as State Medicine measures.

We therefore disclaim that legislation tending toward State Medicine was condoned by the State Medical Society. We further disclaim that the State Society abets the institution of State Medicine.

State University: We admit that up to the last few years affairs and conditions at the University Hospital did not meet with the profession's entire approval. We have known that for several years and during those several years the representatives of the State Society have been intently active to bring about a more satisfactory relationship and cause an abatement of certain practices. It was not an easy task or problem, many factors and influences were involved. Progress is being made and, as announced last February, closer liason has been established by the appointment of an Advisory Council, recognized by the Regents. This advisory Council is composed of the President, Secretary, Editor, Chairman of our Committee on Education, and Chairman of the Councils. Committee on County Societies as representative of our State Medical Society. This advisory Council will still more intimately concern itself with University Hospital affairs. It is our eventual hope that satisfactory results will attend the Council's labors.

Our State University is *our* University in which we as citizen's and taxpayers have just pride. At times we may have been negligent in failing to exhibit interest, but that day is past. It must be remembered that it is a great institution in which many and diversified state interests are centered and that its management is fraught with many complex problems involving many factors. Its policies cannot be created, amended or abrogated at the moment. The interests of all must necessarily receive consideration. Our State Society is alert in representing the profession's interests.

The University does not dominate the State Society—it did ignore the State Society in years past, but the evidence is quite convincing that now the State Society will receive consideration and the Society's expressions will receive just recognition.

We, in Michigan, are jealous of our reputations and resent misleading, unsubstantiated implications. We feel we are in alert, intimate contact with all state affairs that bear upon medical practice, public health activities and state medicine. We too recognize that in our midst there are clinics sponsored by social reformers under lay direction, but not any more so than in Illinois, and we are engaged in an attempt at their control. We prize your solicitousness but just now it is our urge that you do not impugn conditions in Michigan until you actually possess facts. The officers of the Michigan State Medical Society will always be glad to supply facts of a nature that is absolutely authentic and not deduced from aberrant machinating minds.

The problems of social medicine—the policies of clinics, lay dominancy of so-called welfare movements, the conduct of University and teaching hospitals, the demarcation between public health and preventative health measures and state medicine so-called are stupendous problems, tremendously exacting in their multiple impingements upon every phase of human life and activity. Solution and adjustment is not born of the moment nor in a single group. The demand is, that all sincerely and determinedly, seek the ultimate answer—you in your field and sphere and we in ours, in order that from the combined attrition of earnest minds and the interchange of reason, judgment and discernment definite applicable policies be instituted. In doing so it ill becomes us to broadcast aspersions upon state groups—especially so when the assailed group is honestly in quest of light and guidance as is too the profession of Illinois. We in Michigan assure you of our friendly esteem and good will and sincerely desire to merit in like manner the esteem of the profession of Illinois and its valued publication — the ILLINOIS MEDICAL JOURNAL.

By direction of the Council,

F. C. WARNSHUIS,
Secretary.

Original Articles

PRESIDENT'S ADDRESS

THE PRACTICE OF MEDICINE RETROSPECT AND PROSPECT

G. HENRY MUNDT, *M. D.*

CHICAGO

Since the beginning of time medicine has practically been a curative art. There are, however, some outstanding places in history in which the importance of preventive medicine has been appreciated. Probably one of the earliest appreciations of preventive medicine was in the sixth century B. C. when Cyrus the Great took drinking water from home for his army. Cyrus reported to his father that he had provided his army with competent physicians. His father is reputed to have said, "These physicians of whom thou speakest are like menders of torn garments, they cure those who have fallen sick, thy chief anxiety should be to provide for health for thou oughtest to take care to prevent thy army from falling into sickness at all." Hippocrates advocated the boiling of drinking water.

The Romans built great aqueducts and sewerage systems; they recognized the basic principles of sanitary science.

No evidence is to be found of the appreciation of the importance of preventive medicine from the time of the fall of Rome until about the middle of the nineteenth century from which time dates all of the great advance of preventive medicine under the protection of which we live today. About the middle of the nineteenth century Chadwick and Simon revived sanitation as we understand it today and from this period on great strides have been made in the prolongation of life as well as in the general improvement of health.

At about the three quarter period in the nineteenth century the discoveries of Pasteur and Koch made possible the combat against specific diseases. It is true that Jenner in the late eighteenth century produced conclusive evidence that smallpox was preventable by vaccination. This can, however, hardly be called a discovery because Jenner availed himself of knowledge which was common in the rural communities of France and England and probably also in Turkey. The chief debt of civilization to Jenner is that he had the ability to make accurate observations, precise records and the temerity to insist that his observations were correct. This probably is one of the outstanding examples in medical history in which the dogged tenacity in the insistence of the rightness of observations places a man in the forefront of health benefactors. The period of about forty years from about 1875 on is a very bright page in the discovery of disease producing bacteria. Men seem to have almost fallen over one another to announce the discovery of the cause of certain diseases until today as a result of these epoch making discoveries typhoid fever, cholera, smallpox, yellow fever and malaria are rarities in the modern practice of medicne, while diphtheria and tuberculosis are decidedly on the wane.

Based on the knowledge of sanitary science as well as knowledge of the specific causes of disease the death rate of infants during the first year of life has been reduced from more than twelve per cent. twenty years ago to seven or eight per cent. today.

Civilization is indebted to medicine because it focussed in the minds of people the fact that public health is purchasable. Not always have the public felt that medicine did not have an ulterior motive in trying to put in force the great measures of preventive medicine which have come to us very largely within the last fifty years. It should hearten those who are trying to help the public to know that motives are frequently misunderstood, especially is this true in this period of the go-getter and when success seems to be considered by some to consist in getting what one wants.

What has all this to do with the practice of medicine in retrospect and prospect? The foregoing described things have greatly altered the practice of medicine and other changes just as apparently radical as those which have come into practice are destined to come. Do not think that I am admitting that we are definitely headed toward the socialization of medicine. It is my opinion that there still is and for many years will be a sufficient appreciation of the importance of personal contact between the patient and the personal physician to delay for a long time the advent of state medicine in this country.

The practice of medicine has been from the

earliest time almost entirely curative in character. Until comparatively recently the conflict between the various schools of medical thought were antagonistic to say the least and frequently showed no trace of the tolerance which science should engender. Not until definite knowledge existed as to the cause and prevention of some diseases was medicine sufficiently well enough informed for the entire group to think as one. Probably we have inherited some of the difficulties which face medicine today.

I frequently think of a talk made about twenty years ago by an older physician on "Medicine in Englewood Forty Years Ago." I think I shall never forget his first statement. He said, "If one-fourth this many physicians had been together in one room in Englewood forty years ago there would have been a riot call." We may well be thankful that this extreme antagonism in medicine is a thing of the past. There are, however, some points in which we are not all as yet thinking as one, and I believe it possible for us to get closer together in our thoughts than we are today.

There doubtless are physicians here who can remember the time when most of their work in the practice of medicine consisted of seeing persons ill with infections which we know today are preventable and which now are largely prevented. Night and emergency calls were the common thing for the doctor of twenty-five years and longer ago. This character of practice has been materially reduced. Office work consisting of careful examination and the outlining of a hygienic regime and treatment was so small a part of the practice of medicine at the beginning of the twentieth century that it was practically negligible, while today a survey of the character of practice covering over twenty thousand visits shows that of those visits fifty-five per cent. were in the office, thirty-five per cent. in the home and ten per cent. in the hospital. One needs only to think of the great change which has taken place in obstetrical practice from the time when labor pains caused the first call for the doctor to the present time when large numbers of women are under careful observation from the earliest period in pregnancy. The present enviable position of pediatrics is the result of a campaign for better, healthier babies and the pediatrician stands today as the bright example of the feasibility of the private practice of preventive medicine. This group of the general medical profession has much which we may well learn. These men are in many regards the example which we may hope to emulate. It may be well here to say that the decrease in infant mortality and morbidity is not alone the result of the activities of lay groups but is to a considerable extent a result of clean milk, clean water and general hygienic knowledge. At times enthusiasm waxes so high on work of organizations that too much credit is given to one thing with little or none to the basic cause for advance.

It is frequently said that medicine is the only profession which is deliberately committing suicide. Little credit would be due to medicine if we really thought this. No man in medicine would, I believe, ever consider personal financial gain in preference to the welfare of his patient or of the body politic. This explains why our profession has welcomed, yes produced this new era in the practice of medicine.

The thinking men all over the United States today know that there is a great economic problem facing us which we must solve if we are going to be true to ourselves and to the public. It may be well for us to remember that ambition is usually proportionate to capacity, and if we really determine to solve this problem it can be done.

Man is always interested in his health and general welfare, but usually not until he feels that he is in great danger and that was never more true of an individual than it is of the medical profession today. Not until we seemed to be in very dire straights economically was it possible to speak of this subject in a medical organization. There have been sporadic efforts to organize physicians for economic purposes but these have, on the whole, been unsuccessful because there was a feeling among many physicians that medical societies existed only for the advancement of scientific medicine, and if I had any fault to find with the men who have gone before in medical organization it would be that they did not appreciate the importance of the consideration of the economic questions, however, I hasten to say that we should avail ourselves of that wonderful saying "forgive them, they know not what they do."

Even today there are many men of the highest scientific standing who fail to consider the ava-

lanche which is destined to overwhelm the profession unless there be developed a unity of sentiment regarding our great economic problems. Five years ago even in Illinois it would have been almost heresy to say this but I doubt not that ninety per cent. of the men in organized medicine today would agree with me that we are face to face with the greatest crisis that has ever threatened an honest group of the general public.

Changes have come so insidiously and from such apparently honest and necessary places that until medicine was really threatened we did not awaken. It would be only honest to say that medicine is at least partly responsible for our difficulties because of the well known lethargy of physicians as well as the fact that practically all of the baneful influences have come with the sanction of outstanding scientific medical men.

In no line is America more peculiar than in medicine. The development of the practice of medicine in this country has been different than its development in continental Europe or even in the British Isles. In no line has the widely heralded opportunty for the poor boy been better exemplified than in medicine. All one needs to do is to acquaint one's self with the early history of many of the outstanding medical men in Chicago and one will be satisfied of the truth of this statement.

Early in medical history in this country men of vision and enthusiasm went to Europe and saw the great medical centers, great largely because of the abundance of clinical material which was usable to the end. In no place in this country have we had the privilege, for instance, of carrying patients through illnesses and on their death having complete autopsies. This opportunity in European centers has been one of the chief factors in making European medicine great.

Those American physicans who went to Europe returned with boundless enthusiasm and the desire to make medicine as complete here as it was in Europe and they started to build up huge clinics among the people who in all other lines were self sustaining. Medical schools, especially in our great cities, developed and increased in number largely because of the desire of medical men to become eminent physicians and in each instance there was developed a free clinic. These free clinics were doubtless a necessity for medical teaching, but there were many people amply able to pay a private physician who sacrificed their personal independence and became patients at these centers of medical charity. For many years medicine has known this but it never found serious fault with it because it was known that clinical material was necessary for teaching, however, it has been well known that there was great abuse of medical charity in this country. It should be as necessary for an individual to demonstrate his need of assistance before receiving free medical advice (other than in emergency) as obtains in the receiving of other charity. This may seem an extreme statement but it would have the sanction of the vast majority of physicians and also of a considerable proportion of the thinking public.

Recently there have been lay groups with more enthusiasm than knowledge, frequently with the backing of outstanding physicians enter health activities which apparently were for the eventual good of the people but which are, I believe, destined to be decidedly detrimental. These organizations were early dominated by medical men but eventually they got beyond the control of their medical sponsors. I believe frequently these sponsors are embarrassed by this loss of control. Sometimes statistics which were quoted to justify certain organizations activities were, I believe, not absolutely honest. In most of these activities the very people who were supposed to do the work i. e., the physicians were the ones above all others who were not adequately if at all compensated. Bureaus have been established on what is generally known not to be sufficient grounds and I think it is to the everlasting credit of the Illinois State Medical Society that it was able to keep out of the state one of the most pernicious pieces of legislation ever foisted on the general public, i. e., The Sheppard-Towner bill. All one needs do to receive enthusiastic support it seems is to raise the hue and cry that we are about to save somebody, especially the babies. I should like to state in no uncertain terms that if I felt the Sheppard-Towner legislation could do what its proponents claim it can do I would support it to the limit.

In the last ten years there has been developed in this country the spirit of paternalism which is, I believe, to the eventual detriment of the

people. The economic welfare of the people of this country has come about because of independence and not because of dependence. When you take from man the incentive to work and thereby gain success you have removed the greatest influence for success; for this reason paternalism is bad for the morals of the general public as it is bad for the medical profession.

Another influence which has come into existance gradually and at first I am certain with no thought of the serious consequence it might have on the general public is the practice of medicine by Universities in the form of pay clinics. No other department of teaching would think of entering into competition with its graduates as the medical departments of some universities do. If this competition was entered into in other professions I can imagine what pressure would be brought to bear to abrogate the activity. I can imagine what the legal profession would say and do if the law department of any university should go into the private practice of law. It may be argued that it is necessary to have clinical material to teach medicine. The medical profession knows this very well but they feel that there is and always has been ample clinical material for all teaching to be found among those unable to pay.

Frequently we hear that there are only two classes of people who receive adequate medical attention, that is, the very rich and the very poor, leaving the great middle class without satisfactory medical attention. It is my belief that the middle class is given good attention by that group of the profession which serves them and they are the largest group. Certainly on the whole the middle class (and I am not sure who the middle class is) receive as good attention as the very rich or the very poor. It might well be asked who endows dollars with the brain power to chose the highest grade medical service. It is the duty of every physician to at every opportunity challenge the statement that only the very rich and the very poor receive adequate medical care.

It is only fair to say that we in Illinois are not yet in competition to any great extent with universities practicing medicine but it is necessary that we ever be on the qui vive to see that this condition does not overwhelm us as it has almost done in some states. I am not questioning the good intent of some of the men who advocate this pernicious thing but I do question their good judgment, very largely on the basis that anything which reduces the efficiency of the general medical profession especially those in the highways and byways of life will eventually be detrimental to the public.

A condition which definitely confronts medicine at this time and which I think is probably the most advanced thing toward the advent of state medicine is the esablishment of general clinics to be used by all of the citizens by official boards which have previously been interested in the maintainance of hospitals and clinics for the indigent, at least it has been purported their interest was to maintain service for this class of cases. These clinics are manned to a very large extent by physicians very inadequately, if at all, compensated and even the full time physicians are very poorly paid. This condition today confronts the profession in Illinois, and must be met actively and with a united front.

One of the things about which the economist frequently talks is the high cost of medical service and frequently the patient who is operated on and confined to a hospital is cited as an example of the hardship suffered because of the present arrangement of medical practice. Bear in mind that hospital service is a very small proportion of the service of the medical profession, much less than ten per cent. and that the medical profession is not responsible for the high cost of hospital service. One disturbing factor in this is that the ordinary individual who enters the hospital wants only the best even if it is a hardship to pay for it. It is my opinion that frequently the need of the special nurse is over stressed largely because people want them. The nursing profession say there is not an over abundance of nurses. Therefore, we should be careful not to advocate specials in trivial cases. I believe that eventually an efficient method of group nursing will be worked out to the benefit of all concerned. Bear in mind that I have no controversy with the nursing profession; the medical profession is probably as much responsible for this condition as the nurses.

More than ninety per cent. of illnesses today are not controllable on the community basis. They must be controlled by personal service of physician to patient and it is possible for medicine to solve its economic problem by taking care of these ninety per cent. of illnesses and in

addition by acting as personal advisors in health matters. In a survey made by the Commission on Medical Education it was found that less than one per cent. of the service of physicians was of a healthy advisory character. We are losing a great opportunity for service unless we again get to our primary function, that is the function of a teacher. Medicine can if it wishes lift itself out by its own efforts from its economic difficulties if we will but embrace the periodic health examination and its many ramifications. The American people are sold on the desirability of regular inspection of their motor cars. They have their babies inspected at regular intervals by the pediatricians and will embrace the periodic health examination of adults if medicine will adopt this very important function. As a matter of fact I believe that the general public are better sold on the periodic health examination than is the medical profession. Not because the doctor does not appreciate the importance of this advisory service but because his entire training has been focussed on the curative aspect of his work.

No, I am not unduly alarmed. I see only that which is visible to anyone who will give some attention to conditions as they are developing in this country. It has been said that medical men must either be the architect or the hired man and I make a plea to you that every man in organized medicine get behind the effort to have medicine direct and control the building of the health house. Ortherwise we will find ourselves in the position of the hired man being directed very largely by lay people and in most instances by people with no clear conception of the duty of medicine to the public or of the public to medicine. The medical profession individually and collectively is quite prosperous at this time and it is this condition of prosperity which has lulled some into the feeling of security which really is not warranted by a close study of conditions. It is quite typical as is frequently said that there is "always a calm before the storm." A friend of mind told me of a medical meeting at which a man brought up one of the economic aspects of medicine and a man leaned over to him and said, "empty pockets talking." I am actuated in my attitude in this matter by the impending economic difficulties which I see in the near future for the medical profession. Osler said "that many men should pray the prayer of the litany against the evils of prosperity." No truer statement was ever made. It is difficult when a physician has reached a position of affluence for him to understand and advocate those measures which are for the best interest of the medical body and hence for the best interest of the public.

That those physicians who are giving their time and effort to the welfare of medicine may not lose heart I should like to give them one quotation to take unto the heart, "those who can do little themselves find most fault with what others do."

It is necessary if medicine is not to fail in its duty that a much larger proportion of physicians become interested in the problems of medicine than are interested today. You say to me; do you want me to become a medical politician? What is politics? One of the best definitions of politics is, "politics is the study of ideal social organization" (not the art and science of capturing and keeping office). With this definition I ask you all to become medical politicians. Remember that you are a citizen as well as a physician.

In closing I should like to quote a verse from the dedication of Thomas Fuller's, Holy Wars; "It is the bounden duty of a man to better his heritage of birth and fortune and what the father found glass and made crystal the son should find crystal and make pearl."

THE ADVANCEMENT OF LEARNING IN MEDICINE*

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If we turn back to the scant historical records of ancient Egyptian civilizations, Egyptian from the geographic rather than from the racial standpoint, because men of many races from the Near East groped for knowledge in Egypt, we find that in 10,000 years there were no less than eight complete relapses into barbarism. As one after another of these ancient civilizations have been uncovered from the sands of time, much of interest to early medicine has been revealed, but little of distinct value applicable to present-day methods employed in medicine.

In the days of the Ancients the dangers man

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could see with the unaided eye were those of large dimensions, wild animals, serpents, and tempests, relief from which lay in physical action. The dangers which were not visible were considered visitations of unfriendly spirits, and from them the people prayed to their gods for relief. Occultism, the mother of cults, was rampant. Belief in fairies, ghosts, spirits, gods, and devils was the forerunner of belief in the reincarnation of the dead, and communication with the departed, exemplified in the modern spiritualistic seances. The various cults come and go as the frauds of the old are discovered and replaced by the frauds of the new, always with appeal to the emotions and prejudices of the unenlightened.

The early history of scientific medicine was greatly influenced by Greece, because Greece contained maritime ports which enabled all the evidences of early civilizations to be brought to her doors.

Is it any wonder that Aristotle, the Greek (B. C. 384-322), the first of the great physicians, the tutor and medical adviser of Alexander the Great (B. C. 356-323), should be looked on as the originator, one might say, of medical science? On the death of Alexander his empire of the then known world resolved into various fragments, and Egypt and the Near East, which had given through the Phoenicians the alphabet and through the Babylonians the sidereal year, under the Ptolemies collected from the known civilizations a great library and museum in the city named for Alexander on the Mediterranean delta of the Nile.

We think of the Ptolemies who ruled Egypt for 300 years chiefly for the last of their ill-fated line, Cleopatra, whom Shakespeare immortalized in his great drama, "Anthony and Cleopatra," but let us not forget their service to science. It was in Alexandria that the students of Aristotle in the Ptolemaic school of learning gave to the world *scientific methods* based on original investigations, the gathering of facts at first hand and relating them with natural phenomena. Is it remarkable that this beginning of scientific methods from which true knowledge sprang should have controlled scientific thought for 2,000 years?

Men in every age, in times of spiritual or material stress, have risen to saving intellectual heights, far above the level of their environment. Such a man was Abelard, the dialectic philosopher of the twelfth century, who perhaps has been best known through the great human tragedy of Abelard and Héloise.

The dark ages which were precipitated by the downfall of the Western Roman Empire, began to lighten in the twelfth century, as manifested by an emotional awakening for which the crusades were largely responsible. The crusaders on their return from the East brought with them the knowledge of the ancient philosophers which fortunately although submerged had not been completely lost. Abelard, Lombard, and other men of the time were leaders of this resurrection of thought and staunchly proclaimed the dictum that *understanding* is essential to belief, in contradistinction to the controlling ecclesiastic concept that *belief* is essential to understanding. Their teachings were those of Aristotle, modified to apply to Latin conditions.

From the intellectual controversies of the times sprang the University of Paris under William of Champeaux, founded in the first decade of the twelfth century, to be followed by Oxford University in 1210 and Cambridge University in 1231, the first evidences of systematic education in medieval times.

The sixteenth century was pregnant with new developments. It was the great Elizabethan age, the age of Shakespeare (1564-1616) and Francis Bacon (1561-1626), who gave to the world inductive logic which, paralleling deductive logic, introduced experimentation and developed scientific imagination, the building of images to be compared with facts that were known.

It was in this period that William Harvey (1578-1675), physician to Bacon, the father of physiology, lived and worked. We think of Harvey as the discoverer of the circulation of the blood, but his work went away beyond the discovery of isolated facts. He was an anatomist as well as a physiologist and his description of the heart and pericardium is a classic.

It should not be forgotten that contemporaries of Harvey were John Mayow, the first of the physician-chemists, whose work led to the discovery of oxygen, and Sydenham, the master clinician.

From this fertile age came the first crude form of the microscope, introduced by the Jannsen brothers in 1590, the most significant scientific

contribution of all time, destined to change the history of mankind.

From the time of Harvey it was nearly 200 years to that of John Hunter (1728-1793), who organized the knowledge of pathology. Hunter became an anatomist and a physiologist, and, for the first time in the world's history, correlated and related the isolated facts of scientific medicine into a coherent whole. The Hunterian Museum of the Royal College of Surgeons of London, with its thousands of specimens prepared and labeled in black by John Hunter's own hands testifies to his industry and scientific imagination.

William Hunter, the elder brother of John Hunter, was a physiologist and anatomist of distinction. Many of his almost forgotten contributions to science have proved to have been made with the vision of the prophet. While the great chyle vessels were known, it was William and John Hunter, who first described the lymphatic system and traced its minute subdivisions. The Hunters in their dissections had the incomparable advantage of a crude form of microscope and the hand magnifying glass which enabled them to follow the course of injections of dyes into vascular and lymph channels. Belchier, of Guy's Hospital, in 1764 had introduced madder dye for this purpose.

Pasteur (1822-1895) and Lister (1827-1912) may well be considered together. With the advantage of improved microscopes and the development of staining and cultural methods Pasteur, of France, proved his theory of the origin of disease in microörganisms and changed the whole aspect of medicine. Lister, of England, related microörganisms to infections and putrefactive processes and developed methods of prevention which were to be the greatest gift made by man to surgery. Owing to these discoveries, hospitals for the first time became safe. Previously suppuration and gangrenes had caused so ghastly a mortality that patients were safer operated on in the forest than in the hospital.

As one considers the pioneers in medicine one recognizes in Aristotle the development of knowledge through scientific methods; in Harvey the foundation of physiology and anatomy; in Hunter the correlation of the basic sciences in relation to medicine; in Pasteur the determination of microörganisms as the cause of disease; in Lister the sound application of the new knowledge to the cure and prevention of diseases of man.

These heroic men whose life work marked epochs in medicine we think of as individuals, but what they accomplished singly was perhaps of less importance than the inspiration they gave to the group of men who followed them.

It has been well said that physical man has been studied from the dawn of history, not for love of science, but because of fear of death, in an endeavor engendered by fear to understand the causes of death that they might be obviated.

Charles Darwin (1808-1892), in that remarkable series of deductions to be found in his "Origin of Species," laid the foundation for the practical study of evolution through investigations of embryology and comparative anatomy.

The basis for science in medicine fundamentally is anatomy. Physiologic requirement is the architect, but anatomy is the master builder, and the evolution of physiology must be studied in anatomy, embryology, and comparative anatomy.

Up to the time of William Sharpey, an English anatomist (1802-1880), anatomy and physiology were taught together. Elliot Smith well says that it was a misfortune that the students of this splendid anatomist separated physiology from gross anatomy and carried microscopic morphology into the teaching of physiology. Merely that the anatomical picture was microscopic did not justify separation of cause and effect.

To Virchow and his school through the cell theory we owe a newer and better understanding of anatomy and physiology, although Virchow developed his theory from that perverted physiology which he called cellular pathology. The greater part of this new knowledge came from the study of material obtained at necropsy. However, while dead-house pathology gave an enormous amount of knowledge, it did not lead to rapid improvement in therapeusis. The physical changes resulting from terminal causes such as infections so often obscured the early disease manifestations that postmortem study gave little understanding of the disease in its curable stages. Interpretation of pathology of the living is the outstanding feature of modern medicine.

Visual methods. The cerebrum of man was built up coincidentally with the eye, and it is this fact, not the mechanics of the eye, that has

made intellectual progress possible. In the lower vertebrates an expanded olfactory ganglion was the forerunner of the cerebrum, and the sense of smell not only controlled their behavior, but remains in the lower animals the only special sense which is not relayed through intermediate ganglia. The great expansion of the cerebrum in man, however, completely overthrew the dominance of the olfactory sense, giving control to vision, and established direct relationship with consciousness, thereby governing behavior.

Nevertheless, the sense of smell, by reason of its direct connection with the cerebrum, remains, even in man, the most delicate of all the special senses, being able to detect with marvelous accuracy colloidal and molecular substances suspended in the air as gases and vapors beyond the possibility of detection by artificial means. The senses of hearing, taste, and touch are secondary in that they reach consciousness indirectly, and only when trained by the eye do they attain perfection.

The mind of man is therefore a visual mind. The outstanding fact in the history of medicine is that the visual method of obtaining information has been dominant. To make visible the unseen in physics and chemistry is the task of scientific medicine.

Bayliss well says that there is no dividing line between physics and chemistry; that only under certain physical conditions can there take place the atomic inter-change in the molecule called chemistry.

The unit of life is no longer the cell, but the ultramicroscopic entities called colloids, lying between the microscopic limit of 1/10 micron or 1/250,000 inch in diameter and 1/1000 micron or 1/25,000,000 inch in diameter.

Our knowledge of these ultramicroscopic structures dates back to the early period of the nineteenth century and is due largely to three men. Brown (1773-1858), the English botanist, in 1827 pointed out that when a pencil of light was thrown into a dark room there would be seen in rapid oscillation certain motes of light of which there was no other physical evidence, and that this phenomenon could also be seen with the microscope in certain fluids. The dancing motions of these light motes were called the Brownian movements. Dalton (1766-1844), working at the same period with so little scientific apparatus as to be one of the wonders of the scientific world, propounded his atomic theory, and in connection with his work the vibratory movements of the particles first observed by Brown were given the name of "the dance of the molecules."

It was not until 1861, however, that the real significance of these motes of light was elucidated by Thomas Graham (1805-1869), Master of the Mint in London. Graham conceived the idea that these light motes were reflections of minute bodies which, while invisible, were larger than a ray of light, and so acted as mirrors to reflect the light. The rays of light travel 186,000 miles a second, but when refracted or reflected by an object their speed and length are changed and the rays become manifest as colors in the lines of the spectrum. The longest ray appears to the retina as red, and in order of the length and speed of the rays, orange, yellow, green, blue, and violet are seen. On the relative length of these rays is based the colorimetric system which today plays a most important part in the newer medicine. The ultraviolet ray, which is too rapid to be detected by the eye, stimulates physiologic activity, whereas those vibratory rays which are longer and slower than the red give rise to heat.

Graham further observed that these minute bodies which reflected light would not pass through parchment paper, nor form clear solutions. Because these bodies in the mass felt sticky, owing to their enormous surface tension, they were given the name of "colloids," a Greek term meaning glue. Graham also noted that certain other substances, such as the crystalloids, for instance, sugar and salt, which would pass through parchment, formed clear solutions. The crystalloids, representing the molecular constituents, were smaller than the ray of light, and therefore, did not refract light. These experiments in a general way gave the early boundaries of the molecular field.

Scientific application of these methods, using the x-ray, which is only 1/100,000,000 inch in vibratory length, permitted the examination of the atom itself and led to the discovery of the electron and the proton. The proton is the positive nucleus of the atom around which the electron revolves in rapid motion. It was Moseley, that brilliant young Englishman, who lost his life in the Gallipoli campaign at the early age of twenty-eight, who saw the significance of these

facts and who showed that there were ninety-two possible elements between hydrogen, the lightest, and uranium, the heaviest, and that between each two elements in the progression of atomic weight there was approximately the weight of one or more atoms of hydrogen. Wherever there was a gap a new element would be discovered; all but two of the elements are now known.

The actual exchange of electrons and protons in the atom alters the constitution of the molecule, and upon this alteration life depends.

Biochemical Methods. Heat and energy to drive the human machine depend on oxidation, the union of oxygen with other elements. The hydrogen activation theory of Wieland is perhaps the best explanation of the process of oxidation. The great source of energy for the human body is carbon, in which the heat of the sun in stored through the agency of the mechanism furnished by chlorophyl, the green coloring matter of plants. When the carbon is oxidized, the carbon dioxid (CO_2) which represents the ash, is eliminated by the lungs.

The power of the sun which is used in breaking up molecular compounds containing hydrogen remains latent in the hydrogen atom, and when this power is released by oxidation, which rebuilds the hydrogen molecule, heat and energy are available for vital needs. The ashes of this section, if one may so speak, are represented by water (H_2O).

Life is a struggle for food, and changes in the habits and in the form of all animals are adaptations for the purpose of obtaining food.

Foods are classified in three groups: carbohydrates, fats, and proteins, and all contain carbon, hydrogen, and oxygen. The higher the oxygen content, the more rapid the oxidation. The fats (glycerin stearate, $C_{57}H_{112}O_6$), have a higher oxidizable molecular content, and therefore more heat and energy, than carbohydrates, represented by glucose sugar ($C_6H_{12}O_6$), but burn more slowly because of a relatively lower oxygen content. In addition to the carbon, hydrogen, and oxygen, the proteins contain nitrogen, which gives form to the tissues by permitting the deposition of other elements, such as calcium and phosphates, and a little sulphur. The nitrogen is not combustible and when it has served its purpose it is thrown out of the body as urea, an ash, which if present in excess in the blood has grave consequences.

Kendall has shown that an atom of sulphur in the catalyst acts as a thermostat which holds the heat of the body at 37° C. A pound of sugar burned outside the body will produce the same amount of heat as a pound of sugar burned inside the body, but only at a temperature above 400° C.

The essential alkalinity of the bodily tissues is slight. This alkalinity has been compared to the difference between tap water and distilled water, and at that, distilled water must be fresh or it would absorb sufficient acid from the carbon dioxid in the atmosphere to upset the alkali acid balance. An excess of alkali in the blood, called alkalosis, is now known to have as serious effect as diminution of alkali, badly named acidosis, because an acid reaction in the blood is incompatible with life.

Among the constituents necessary to life are salt and iodin. These two elements are a heritage from the water vertebrates. Iodin, like salt, is soluble and easily washed out of the soil, and is closely concerned with vital metabolic changes. The discovery of thyroxin by Kendall gave not only insight into but a tremendous impetus to the successful management of goiter.

Seventy-five per cent of the body weight is due to water. There is as much water in the muscles as there is in the blood, but in a different colloidal combination.

Carbohydrates, fats, and proteins in a molecular form are carried in the bloodstream. The arterial blood contains 18.5 per cent by volume of oxygen. Krogh and Haldane have shown that in man at rest, each cavity of the heart expels about 4 liters of blood a minute. During violent exertion, to supply the necessary amount of oxygen to the tissues, the entire volume of blood passes through the heart and around the body every ten seconds, and the amount expelled by the heart each minute is increased from 4 to 24 liters.

Krogh showed also that during the systole of the heart there is sufficient dilatation of the arterial capillaries to open tiny ostia which permit the escape into the tissues of molecular food products with the oxygen. The extraction of the heat and energy is the function of the tissue colloids and the negative pressure in the veins draws the carbon dioxid into the venous channels for elimination through the lungs. In shock,

sufficient dilatation of these ostia permits the blood colloids to pass out into the tissues.

Examinations of the secretions upon which sole reliance formerly was placed are now aided by examinations of the blood. The estimation of the blood sugar helps us to understand not only diabetes but also the relation of shock to subnormal blood sugar content. Nurmi at the end of his long distance runs had a normal blood sugar, whereas those who dropped out of the race had greatly reduced blood sugar. The estimation of the blood urea is no longer guess work, but an accurate estimation of kidney function and is a guide to elimination of toxic substances. Creatinin estimations have their prognostic value. Through determinations of the blood chlorids and the carbon dioxide we get a clue to baffling conditions which formerly led to death.

All of these estimations either directly or indirectly concern vision. The discovery of the aniline dyes by Perkin (1838-1907) led to a great advance in medicine, because the mass of molecular and colloidal particles of the dye is readily recognized by the eye. Rowntree and Geraghty made a splendid contribution to accuracy in medicine by finding that the molecule of the dye, phenolsulphonephthalein is the same size as that of urea and that it is eliminated through the kidneys in the same way. Visual methods of detection and measurement are now available. By further experimentation Rowntree found that the dye, phenoltetrachlorphthalein, when injected into the bloodstream is eliminated entirely through the bile. Later Rosenthal from this fact developed a valuable method of estimation of liver function. Graham and Cole have utilized Rowntree's original discovery to develop cholecystography, working first with phenoltetrachlorphthalein, which in the gallbladder gave a faint shadow under the x-ray, later with the corresponding iodin, and finally with the bromin substitution product of phenoltetrachlorphthalein.

Photography has enabled the eye to examine at leisure the phenomenon of motion in the ultramicroscopic field. One twelve-millionth of a second is sufficient to make a photograph which will show a bullet in flight at a muzzle velocity of 3,000 feet a second as though it were standing still.

All these are examples of our ability to analyze the individual in his vital processes as we would analyze in the test tube.

The past generation solved the problem of communicable and infectious diseases, largely those of the first half of life. The present generations are solving the problem of the premature deaths of middle and later life caused by diseases of the heart, the lungs, kidneys, and nervous system, and cancer, the age-long enemy of man, is on its way to defeat.

The future of medicine depends on further study of biologic phenomena in the ultramicroscopic field of research.

A TUBERCULOSIS INSTITUTE OR WHAT

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In the October 29, 1927, issue of the *Journal A. M. A.*, under the caption of News Items for Chicago, appeared an article which stated that the Chicago Tuberculosis Institute had just completed an examination of the students in one of Chicago's junior high schools. This narration of achievement sought to impress upon the reader the fact that these examinations were made by trained and registered nurses from the staff of the Institute. In the course of their examinations these very competent nurses found almost everything but venereal diseases; apparently a study of these conditions had been overlooked during their training period. This was truly a wonderful accomplishment and deserved special mention.

I read this article with a great deal of interest. I marveled at the amazing amount of medical knowledge that these young women have accumulated in their short period of nursing training. I marveled also at the asinine stupidity of a school board, more interested in shooting John Bull than in the education of the children, who sanctioned and aided in the conducting of this farce in the guise of complete physical examinations. It is apparent that neither the Chicago Tuberculosis Institute or the school board has any regard for the provisions of the Medical Practice Act of the State of Illinois.

The Chicago Tuberculosis Institute has an insatiable desire to ingratiate itself, by one means or another, into the good graces of the community, always at the expense of private prac-

tice. At the present time, in the City of Chicago Heights, it is trying to ease itself into a position of directing and conducting the examinations of children about to enter school for the first time. This pseudo-charity organization is intent upon the establishment of free clinics, not for the poor, which the profession has always taken care of, but for all who come. The very apparent aim of this mis-conceived organization is to make the office of the Chicago Tuberculosis Institute, not the Doctor's office, the health center of the community.

About a year and a half ago I attended, as a member of a committee from our Branch of the Chicago Medical Society, one of the pediatric clinics conducted by the Chicago Tuberculosis Institute. Every woman who brought her child to that clinic had the examination made, and was given advice, free of any charge. Not one legitimate charity case presented itself on that day. Before the clinic period was over, a well dressed woman entered with her baby, the chauffeur waited a short distance away while the worthy act of dispensing charity took place. After the pediatrician had completed his examination and had advised the poor mother when and what and how to feed her offspring, she informed him that a few days before she had gone to Dr. ——— and that he had given her an entirely different procedure to follow. The woman was immediately informed that it was foolish for her to take the child to her doctor and then come to the clinic, that the thing to do was to take her child to one place or the other. He dismissed her with the invitation to return to the clinic in a month and in the meantime to follow his instructions. The man who conducted this clinic called himself a specialist, but the Chicago Medical Blue Book did not list him as a member of any professional society.

The orthopedic clinic conducted by the Chicago Tuberculosis Institute, in conjunction with the Rotary Club, was being operated along identically the same lines. On the day that our committee visited the clinic, we found that it was not being conducted for the poor but for all who came; many people of considerable wealth brought their children with orthopedic defects to receive charity at this clinic. The orthopedic surgeon in charge of the clinic told the committee that it was unnecessary to confine the work to charity cases, that it was the desire of those most interested to build up a large clinic and make a fine showing.

For a few hours, on one day a month, a chest clinic is conducted by a clinician from the staff of the organization at the "Health Center." This is the tuberculosis clinic of the Chicago Tuberculosis Institute. The nurses have very little time available, and a little of that is given to tuberculosis nursing. After all, not so much is necessary as practically all save ambulatory cases are in either private or in county sanitariums. So much for tuberculosis. As is usually the case he who is continually seeking credit for what has been done has done very little to get credit for.

The local school board in Chicago Heights, contrary to the laws of the State of Illinois, pays into the coffers of this private charity organization $1,000.00 a year, in return for which a nurse is provided during the school year. The school nurse is an employee of the Chicago Tuberculosis Institute. This nurse is very competent, she has an amazing amount of medical knowledge, she makes diagnoses of all communicable diseases, cases of heart disease, tuberculosis, twisted spines, "game" legs, bad tonsils and bad teeth. Yes sir, she finds 'em. Those undernourished children must go to the "Health Center" for examination, not to the Doctor's office; he doesn't run a clinic.

The Chicago Tuberculosis Institute never stops in its effort to pauperize those who should take care of themselves. Surgical cases are not to be overlooked. Major surgery is directed where the cases are handled at from $25.00 to how much have you got. Big League Stuff. They don't seem to care so much for major surgery, tonsils is what they like. Show one of those nurses a big pair of tonsils still in the throat. Her face will light up and she will begin to radiate that same joyful feeling that comes over a hungry cat when he skates up to a pan of warm milk. Bargain-hunting adults and all children, unless their parents object, are hurried to the dispensaries of the medical schools or to the charity wards of the large Chicago hospitals; here the tonsils and adenoids are removed at from $5.00 to $7.50, costs more for adults. One of my confreres in a neighboring city recited an incident to me the other day which was in keep-

ing with my own observations. He told me of a woman of prominence and social standing in his community whose husband held a very lucrative position in a large corporation, who came to his office and said: "Doctor, I want you to take a look at Mary's throat. See if her tonsils need to come out." The examination disclosed that the child had infected tonsils that should be removed. The woman paid the doctor his fee of $2.00 and said that she only wanted to know whether the little girl had bad tonsils or not. As she arose to leave, she said: "About a year ago the nurse from the C. T. I. took little Johnnie to Chicago and had his tonsils taken out. The bill for the doctor, the anesthetic, the hospital and everything was only $5.00. *It's such a bargain* I'm going to have the nurse take Mary to the same place and have her tonsils taken out." A union carpenter, who does so much for nothing, had his tonsils removed for $7.50. An insurance broker, who maintains an office in the loop in Chicago, who owns his own home and two flat buildings, was an object of charity in the eyes of a Chicago Tuberculosis Institute nurse working in the northern part of Cook County, and his child's tonsils were removed for $5.00. I won't burden you with any more of these cases now. I want you to appreciate with me that all cases to these professional charity nurses, they all get their money, are poor and are entitled to free medical care.

The Municipal Tuberculosis Sanitarium, the Cook County Hospital and the Oak Forest Sanitarium are all supported by the taxpayers. The Municipal Tuberculosis Sanitarium is charged by law with the supervision of the public health angle of tuberculosis and the care of indigent cases, this is supplied through the dispensaries which it maintains and its sanitarium, the Cook County Hospital and the Oak Forest Sanitarium are also available. In the City of Chicago, the Chicago Tuberculosis Institute does no tuberculosis work, it's a good thing they are free to conduct these examinations in the schools. The Chicago Tuberculosis Institute functions as a tuberculosis organization in the outlying districts of Cook County, and not very much there. I believe that I am perfectly safe in saying that every physician in general practice does more in his community for the care and prevention of tuberculosis than does the Chicago Tuberculosis Institute in that community. I am just as sure that the profession does more along these lines than all other organizations in Cook County.

The Chicago Tuberculosis Institute has become very much exercised over the signs of growth manifested by the Cook County organization directed by Dr. Herbert L. Wright, the County Health Officer, who hasn't a license to practice medicine in the State of Illinois. It seems a pity that there is so much "bad blood" between these two organizations, both marching under the banner of sweet charity. The reason for this is that both have taken the attitude that the health of the community rests in their hands. They like each other just like a couple of stray bull dogs. Too bad.

The Chicago Tuberculosis Institute is not an organization strictly adhering to its publicly avowed purpose of combating tuberculosis, inasmuch as it expends far more of its time and its resources in the establishment of numerous clinics, social service activities, and general public work, the greater part of which there is no necessity for, than it does in the control of tuberculosis. The Chicago Tuberculosis Institute plays a very small part in the real work of the prevention and the cure of tuberculosis in Cook County. The inference which its name carries, that the Chicago Tuberculosis Institute is the great Cook County champion in the fight against tuberculosis, is a pernicious lie, which seeks to belittle the work of greater forces. The Chicago Tuberculosis Institute is the recipient of the proceeds from the sale of Christmas Stamps (Red Cross Seals) for the entire county; this diversion of funds, given to aid in the fight against tuberculosis, to the coffers of a private charity organization, is a most vicious fraud perpetrated against the people of Cook County in their whole-hearted spirit of Christmas giving. Then there is always another source of revenue that organizations of this type do not overlook; it is those public spirited individuals who are gifted with a soft head and a big pocket book. It looks more like a confidence game to me than it does a tuberculosis institute.

The members of the profession who are practicing outside of Chicago in Cook County are still doctors in their respective communities. They practice in cities and towns which have not yet been strangled by professional charity or-

ganizations. They are out on the firing line making a determined stand for decent medical practice against wealthy organized charity and against the unfair competition of the schools that graduated them. In that part of Cook County which lies outside the corporate limits of the City of Chicago, the greatest menace to the practice of medicine by the individual physician is the Chicago Tuberculosis Institute.

PRIMARY MALIGNANT TUMORS OF THE NECK AND THEIR TREATMENT*

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We are all acquainted with the superficial malignant conditions in this region, such as basal cell carcinomas of the skin and those epitheliomas that sometimes follow the degeneration of certain types of moles, but the deep-seated primary malignant growths that occasionally arise here are less clearly understood. They include primary carcinomas and endotheliomas due to congenital defects; sarcomas and endotheliomas of the lymph nodes and cervical tissues; tumors of the submaxillary salivary gland, carotid body and thyroid gland. Such a definite grouping of neoplasms in this locality can be accepted only arbitrarily, as no consensus of opinion prevails among competent pathologists in regard to the true nature of the process in very case. Therefore, the subject is approached with due respect for divergent views.

The development of the neck takes place early in embryonic life. Soon after the enclosure of the foregut the pharyngeal membrane spreads downward between Seesel's pocket and the diverticulum of the hypophysis (Rathke's pouch) and widening laterally it shows four pharyngeal pouches.[1] Later a fifth pair develop. These four pairs of pouches form: (1) the Eustachian tube; (2) the palatine tonsils and supratonsillar fossae; (3) the thymus anlage, and (4) the parathyroids.

Between the pharyngeal pouches are the five branchial arches which are included in the construction of the jaw and hyoid bone; the thymus and thyroid glands; the styloid process and the stylohyoid ligaments, and some of the soft tissues of the neck. As the pharyngeal pouches continue in their development they come into contact with the ectoderm of the branchial clefts, fuse with it, and form closing plates, so that normally at birth the neck presents a smooth surface.

Thus the structural anatomy is both complicated and vital. Of the several compartments the most important is the carotid triangle, which contains beneath the border of the sternocleidomastoid muscle and the deep cervical fascia, the carotid vessels, the internal jugular vein, the vagus, sympathetic, phrenic, hypoglossal and spinal accessory nerves, and important lymphatic channels.

One of the frequent sites for the beginning of some of these primary tumors is the medial superior deep cervical gland, at the level of the internal jugular vein where it is obliquely crossed by the posterior belly of the digastric muscle. This location is often termed the "critical point" of the neck, for here within a space of about 3 cm. arises the vascular supply to all the structures derived from the first five arches and at this point converge not only the greater part of their venous drainage, but what is more important, the lymphatic drainage also. Within this area is situated the main collecting station for the lymphatics derived from the external auditory meatus, the Eustachian tube, the nasopharynx, the tonsil, the tongue and the pyriform fossa.

The primary development of carcinoma of the neck was first observed by Langenbeck,[2] in 1861, who thought it was a vessel sheath tumor. Twenty years later Volkman[3] described the true nature of such growths, and mentioned three cases. He considered them to be epithelial remnants of branchial clefts, and named them branchiogenic carcinomas. His views on the origin of this variety of tumor have been generally accepted, although in the beginning Gutmann[4] and Gussenbauer[5] tried to disprove the theory.

If we accept Volkman's explanation, then it is easy to understand the production of tumors here and to picture instances in which, during the formation and fusion of the pharyngeal pouches and branchial clefts, defects of union might occur leading to the construction of cysts; or islands of epithelial tissue could become pinches off and displaced, and remain as small latent buds devoid of activity. Then under the influence of certain factors at present unknown

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proliferation takes place and a malignant tumor results.

A considerable number of branchiogenic carcinomas have been described in the literature and may be placed in two groups, those developed from pre-existing cysts and those developed from the vestigial remains of the clefts. In the former, the structure of the tumor is that of a squamous cell carcinoma, while the latter group comprising those tumors that have arisen in the pinched off discrete islands of epithelial tissue, closely resemble the mixed tumor type found in the salivary glands, and are considered by some pathologists as endotheliomas. On first thought it may sound illogical to ascribe to a common cause, tumors so diverse in structure, but when it is recalled that the wall of the branchial cleft consists not merely of a layer of epithelium, but also contains connective tissue and a well developed layer of lymphoid tissue, it is not surprising that more than one variety of tumor can be produced from it.

They begin as small rounded masses, situated in front of the anterior border of the sternocleidomastoid muscle, and between the great cornu of the hyoid bone and the angle of the mandible. As enlargement continues, extension may take place into the posterior triangle behind and the parotid gland above. Metastasis is late.

Perhaps the most frequent primary malignant invasion of the neck is sarcomatous in nature, and while the species is determined according to the prevailing type of cell, it is usually present as a round cell sarcoma or lymphosarcoma.

Round cell sarcoma may start in the lymph glands or connective tissue. Microscopically it is composed of little intercellular substance and the nuclei of the cells are always very conspicuous. Blood vessels are abundant, often appearing as mere channels between the cells; this accounts for the readiness with which the cells migrate by way of the blood stream. It is the most generalized tumor that affects the human body[6] and may occur at any age, arising in vestigial remains as well as in organs in the full exercise of their functions. It begins as a single nodule which rapidly invades the surroundings and metastasizes.

Lymphosarcoma, first clearly described by Kundrat,[7] consists of a more or less widespread growth arising from one or from a group of lymph glands, in which the small round cells are contained in a delicate but definite reticulum formed by the branching processes of other cells. The tumor exhibits a characteristic structure. It occurs as a rule in very definite situations, one of which is the cervical gland area and presents special clinical features which consist of a creeping involvement of a chain of lymph glands until a large mass is formed, the separate members of which are matted together. In some respects it resembles normal lymphoid tissue but there is no trace of the architectural characteristics of a lymphatic gland. It differs from the small round cell sarcoma by having a delicate reticulum. It grows rapidly, bursts from the gland capsule and early infiltrates the adjacent tissue, becoming attached to the skin and soon ulcerating. Frequently the infiltration produces pressure symptoms or thrombi.

Endothelial tumors, in the strict sense, are those which are believed to be derived from lining cells of blood vessels, lymph vessels and serous cavities. Although this classification is disputed in some respects, nevertheless, according to Ewing,[8] two facts stand out: (1) the lining cells of the great body cavities, as the pleura, pericardium, etc., are derived embryologically from the cells forming the coelomic cavity after the splitting of the mesoderm; (2) the lining cells of blood vessels and lymph vessels are derived from mesoderm and are closely related to connective tissue. Their position is, therefore, intermediate between epithelium and connective tissue and they possess to a certain degree, the tendencies of each.

Primary endothelioma of the lymph glands was first described by Chambard,[9] in 1880, and a year later by Hoffmann and Schottelius,[10] who first used the term endothelioma. The nature of these tumors has now been generally accepted and many pathologists believe they are rather frequent in occurrence. Ewing describes them in early cases as being circumscribed with a free capsule resembling early tuberculosis, but later they become extremely hard, adherent and multiple. The infiltration of the surroundings is compressive and destructive as in carcinoma, although the progress is much slower than in epithelial growths. Very extensive fibrosis takes place late in the disease and often produces edema and dyspnea. Asphyxiation may occur. Early, the microscopical picture may resemble granulomatous inflammation. The cells are

large, elongated, or polyhedral, with very large vesicular nuclei and diminutive nucleoli and they spring from multiple foci from the lymphatic tissue.

Tumors of the sublingual salivary gland while not uncommon are far less frequent than those of the parotid. Controversy has long waged over this group, which includes carcinomas, sarcomas and the so-called mixed tumors.

Carcinomas develop rapidly, soon invading the whole gland, the capsule and regional lymph nodes. After extirpation recurrence is prompt.

Sarcomas are rarely seen, and except those originating in the reticulum cells of the lymph follicles of the gland have not been satisfactorily proved.

In the mixed type the most diverse views are held as to the true nature; those supporting the endothelial theory state that owing to the presence of both mesoblastic and epiblastic elements, the tumors must be of the nature of an embryona and thus derived from a germ cell. On the other hand, Ehrlich demonstrated that mucin-secreting cells of the tumor could produce mucoid connective tissue from which eventually by a process of metaplasia, cartilage may be formed.

The clinical course of these tumors varies. In some cases, after two or three years steady enlargement growth ceases. In others, gradual enlargement extends over a long period of years and the tumor attains considerable size, but if encapsulated, it may be safely removed. In still other cases, the tumors possess no capsule, invade surrounding structures and return after excision. The lymph glands are seldom involved unless excision has been followed by recurrence.

The carotid body measures about 1-2 mm. in diameter and lies at the bifurcation of the common carotid artery, slightly at the posterior side of the internal carotid, just as it leaves the main trunk. It is formed from the primitive vascular anlage[11], from cells of epithelial type which become heaped up at this point and at first are continuous with those of the vessel wall. The resulting nodule is enclosed in adventitia and afterward, when capillary vessels derived from the common carotid enter the mass, it assumes a form not unlike a glomerulus.

The fact that tumors could be derived from this body was discovered by Marchand[12] in 1891, although nearly one hundred years earlier, Allen Burns[13] mentioned having seen several cases that had the characteristics of an aneurism but which at operation proved to be tumor tissue attached to the carotid bifurcation. According to Marchand, they arise as a result of the proliferation of the cells of the gland. On the other hand, von Heinleth[14] considered them to be derived from the capillaries.

The growths are either lobular or lobulated; lobulation is common because of the location of the neoplasms, which during their development grow on either side of both the internal and external carotid arteries; also, the septa which penetrate the tumors tend to produce a lobulated condition. The tumor first appears as a small lump in the side of the neck at the level of the bifurcation of the vessels and partly under the sterno-cleido-mastoid muscle; as it enlarges, it becomes ovoid in shape with the long axis in the perpendicular plane and resembles a pigeon or goose egg. Jonathan Hutchinson called them "potato-like" tumors. They are movable laterally but not vertically. The consistency varies but is usually hard and elastic. Transmitted pulsation can be felt over the mass as well as a thrill; on auscultation, a bruit may be heard; however, there is no expansile pulsation as in aneurism.

On dissection the capsule appears fairly well defined and the external appearance resembles goiter, and may sometimes lead one to think he is dealing with an accessory thyroid. The color and abundant hemorrhage help to favor this view. On section the tissue is brownish and sponge-like, due to the chromaffin in the tumor cells and the abundance of blood vessels. Microscopically, penetrating bands of fibrous septa are seen, which contain both large and small blood vessels and take part in the production of the alveolar arrangement of the growth. The shape and size of the alveoli are not uniform but invariably they contain tumor cells which are large and polyhedral in shape. Operation is usually followed by recurrence as conclusively proved by Balfour[15] and Tinker[16].

The thyroid gland may be the seat of either carcinoma or sarcoma and although either one may arise in an apparently normal gland, it usually develops in one already showing evidence of goiter. Tumors here have the peculiar tendency of forming metastatic areas in the

skeleton which are oftentimes composed of thyroid tissue instead of tumor cells.

The frequency of malignant invasion of this gland is variable. In Berne, 1 out of every 93 post mortems reveals malignant change; in the Mayo clinic the incidence is 1 in 297 cases operated on for thyroid disease.

Kocher[17] and Langhans[18] believe that they can distinguish several groups of these tumors, the most common of which consist of proliferating adenocarcinomas occurring as single nodules containing every transition between solid strands of cells and colloid containing alveoli, and a second group, called by Langhans "carcinomatous struma" which has the arrangement in irregular solid strands of epithelial cells. The latter type quickly burst through the capsule of the gland and metastasize abundantly. Crile[19] states that fully 95 per cent of growths here are carcinomas and that 90 per cent of them develop from fetal adenoma. Sarcomas, whose characteristics some pathologists will dispute, represent 5 per cent or less, and when found are usually of the round or spindle-cell variety.[20]

According to Wilson[21] correct early diagnosis of these tumors is made less frequently than of any malignant change involving any other organ in the body.

From a clinical standpoint, two facts present themselves: first, nodular masses in the gland are more suggestive of possible malignant degeneration than smooth enlargements; second, a sudden increase in rate of growth of a nodular thyroid should warn one of a possible beginning malignancy.

It is an unfortunate fact that the early symptoms of malignant disease of the neck are chiefly negative. The patient may be aware of a lump, but as long as it remains small and painless, there is faint likelihood of him consulting a physician. Later, as the mass enlarges, relief may be sought, but by this time the first stage of progress has usually passed and we are confronted with a more or less extensive tumor, poorly defined, densely indurated and painful—the well-developed second stage picture, which soon produces compression signs, emaciation and more pain and enters the third and last phase of the disease.

In making a differential diagnosis one should always examine the nose, oral cavity and ears; the larynx should be inspected with a mirror. In this way, what sometimes appears to be a primary malignancy, will prove secondary to a newly discovered focus in the mucous membrane.

In early cases, when the tumor is smooth, round and circumscribed, it is necessary to exclude simple adenitis, tuberculosis, Hodgkin's disease, syphilis, lipoma, cyst and aneurism. In more advanced cases we must rule out actinomycosis and ligneous phlegmon.

The treatment depends upon the type and extent of the neoplasm. Either surgery or radium may be indicated alone or together.

As surgeons it is necessary to recognize the condition in the primary stage while the tumor is circumscribed. Only then can excision promise cure. Once the process has invaded the surrounding cellular tissues and provoked phenomena of compression, palliation alone remains.

In localized cases the best results are obtained with surgery and radium in combination. With the exception of lymphosarcoma, where the knife certainly holds no authority, I believe that the imbedding of radium needles at the time of operation followed by external applications of heavily screened radium over the whole area of the neck, as well as the field of excision, offers the only reasonable hope of permanent relief.

It is a well known fact that some types of tumors are more easily affected by radiation than others. This has given rise to the idea that the gamma ray exerts a selective action on certain tissues. Such conclusions are misleading. All types of cells are affected by radiation if the dose is sufficiently large. The picture is better described as one of differential action. In general, tumors derived from embryonal cells and retaining embryonal characters are more susceptible to radiation than tumors derived from adult cells and reproducing adult cell types.

In the more resistant growths I believe intratumoral radiation is always the method of choice for the following reasons: (1) Kepler's law states that the amount of energy received at any point varies inversely as the square of the distance. (2) To deliver a sufficient intensity of radiation to an area beneath the skin might require more energy than the skin can tolerate, and the result would be a destruction of the cutis with undesirable ulceration. (3) By imbedding the radium in the growth itself, the damage to the skin is negligible and the tumor receives 100 per cent of the energy.

Broadly, indurated tumor masses offer no promise of permanent cure with radium, although the progress of extension may be arrested for a variable length of time.

Lymphosarcomas, if diagnosed early and no attempt is made toward excision, occasionally may be arrested for several years. This type of tumor cell offers less resistance to radiation than any other. To witness a mass 5 cm. in diameter disappear in 96 hours is not a miracle but an actual fact. Following the treatment of the local area the surrounding lymphatic channels should likewise be covered. If no metastases appear in the deep organs in a year, I consider the prognosis favorable.

Advanced cases, presenting marked deformity and pain as well as pressure signs, which include dysphagia, hoarseness, tinnitis, edema of the head and lockjaw, are pitiful aspects. Such patients are beyond the realm of surgery, but may receive prompt benefit from radium. After treatment, the continual pain disappears; the edema melts away; the voice improves; the dysphagia is forgotten; and the jaws regain their previous mobility. Although such miraculous improvement is only temporary, it must be admitted that something worth while has been done in the patient's behalf. Life has been prolonged and suffering relieved.

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DISCUSSION

Dr. John Wolfer, Chicago: The subject that Dr. Crain has presented is of interest to me personally for two or three reasons: First, I think we are all interested in the differential diagnosis of tumors of the neck. We all know the multiplicity of types of tumors of the neck and, as he has very tersely stated, if we hope to relieve these cases by surgical means, we must diagnose the malignant tumor early. We know how loath people are to come to the physician when they have a small tumor mass in the neck but when it begins to grow and spread, then they seek counsel and for them counsel is often too late, so far as surgery is concerned.

There are a number of factors which appeal to me personally that I would like to just rehash for the moment. There is one type of tumor that he stresses; that is, carcinoma which arises from the branchial cleft. It has been my privilege to have dissected out a number of branchial fistulae. An interesting thing is some of these extend up to the fossa well back of the nasal pharynx; some attach themselves to the cervical process. I recall distinctly one in which a very hard indurated, irregular, nodular tract was dissected which was attached to the transverse process of one of the cervical vertebrae. In this tract we could find all sorts of embryonic tissue and cartilage; we could find structures that we did not know just exactly what they were. They were not typical epithelial cells. We could not interpret them as ends or endothelial cells. When you look at these specimens microscopically, you can picture what might happen in some of these cases as the starting point of tumor, either of the endothelial type as endothelioma, or as carcinoma or probably other tumors such as chondroma.

As far as the carotid body is concerned, when we study the histology of the gland, I believe the tumors may be of several types. The carotid body belongs to the chromaffin system. There has been described recently—I had the privilege of presenting this before the Chicago Surgical Society some years ago—a peculiar type of tumor which arises from the chromaffin system. Microscopically, this tumor looks not unlike a carcinoma, that is, you have alveoli filled with cells which look not unlike carcinomatous cells, yet are not carcinoma cells. In this class of tumors, you find many small capillaries among the tumor cells. The arrangement of the cells is peculiar, in that the nucleus is at the wrong end of the cell-lumen-wards. If you institute differential staining, you will find these tumor cells reduce silver. Probably the best way in which one can identify these cells is by the silver impregnation method. This tumor, as I say, looks like a malignant tumor. We found in the tumor which I studied, that the cells had broken into the veins, yet this was a benign tumor. The tumor I speak of was not of the carotid body but a tumor removed from the duodenum. The tumor was removed some 23 years and the patient is still well, without any recurrence of symptoms. I think this type of tumor when found in the carotid

body has been diagnosed as a carcinoma or endothelioma.

One other point, and that is in regard to the excision of the carotid body tumor. Due to its fixation to the vessels, it necessitates at times the removal of the caroid artery. Theoretically, if we ligate the internal carotid, we should have a hemiplegia. I would like to ask if any one has had any definite experience in which the internal carotid artery has been cut and in which the patient did not suffer serious brain changes.

Dr. L. Seed, Chicago: Dr. Wolfer asked about the carotid body tumor and ligation of the internal carotid. We had one at the University of Illinois three months ago in which a diagnosis of aneurism had been made and ligation of the external carotid had been done elsewhere. The tumor had persisted, projected into the pharynx producing severe hemorrhage once, and was causing difficulty in swallowing and in breathing. A diagnosis was made in the dispensary of either an aneurism or hard fibroma. I was of the impression that it was a fibroma of the pharynx. Operation was performed by an incision from the outside. At the time of operation it appeared from the outside to be more probably an aneurism and I deliberately ligated the external carotid, then the internal carotid and of the external carotid, the nthe internal carotid and of course at the same time the internal jugular vein. The patient also had general paresis. Three months after operation he was returned to the neurologic department but no symptoms referable to the ligation of the internal carotid were found.

In the war, it was found that if the internal jugular vein is ligated at the same time as the internal carotid is ligated, the incidence of the cerebral symptoms is cut down enormously. I would like to add one thing: We have followed the principle that every lump in the neck should have a biopsy before a definite diagnosis is made. This spring we thought our diagnostic ability was competent without a biopsy and in two cases made a diagnosis of T. B. glands of the neck without removing a piece for microscopic examination. Later, one of the group of glands proved to be a neuroma and the other Hodgkin's disease in a child of seven years of age. So we insist that no diagnosis be made of tumors in the neck, which are at all questionable until a biopsy has been performed.

Dr. Wolfer (in response): The reason I brought this up is that I got into an argument with Dr. Loyal Davis, our neurological surgeon, on this topic. He said, if you ligate the internal carotid artery, brain symptoms must follow; that there was no doubt about it, because the vessels are terminal vessels and there is no question but that a hemiplegia will follow. It has been my experience that you can ligate the internal carotid and the patient will not invariably develop a hemiplegia.

Dr. J. R. Harger, Chicago: It has been my fortune to watch Dr. Crain's work. Suffice it to say, diagnosis of these tumors is usually not made until after they are removed in section or some part of them, except in those cases where the growth is extensive and the third or advanced stage has been reached.

I have had experience with four of these tumors. In each instance they had been cut into and not cut out before they came under my observation. The last one forms the basis for Dr. Crain's paper.

The first three cases that came under my observation went on to a fatal termination very promptly with marked ulcers about the neck after the tumor had been cut into. In the last case the extension of the growth caused the ear to stand out, and the patient had all the symptoms that Dr. Crain spoke of. Suffice it to say, when the radium was applied, this man's condition improved remarkably. His tumor disappeared and, while we do not anticipate a cure, we certainly have made him far more comfortable and his life more endurable, and I am sure prolonged his existence by the use of radium.

Dr. Bettman: Were they carotid body tumors?

Dr. Harger: No, it was an endothelioma of the neck.

Dr. E. P. Coleman, Canton: I might add one case of gunshot wound in the neck, with ligation of the internal carotid artery, and no symptoms.

THE VALUE OF THE FLUOROSCOPE IN SURGICAL MANIPULATIONS*

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In attempting to discuss a subject of this sort one must apologize at the onset for undertaking a theme which must necessarily involve a variety of pathologic conditions, not at all related except that they lend themselves favorably to the discussion of the topic at hand. We are not particularly interested in the stereoscopic fluoroscope, or the monocular cryptoscope, or in any other special device which is not practical or available for use in the ordinary outfit by the average surgeon or the general practitioner. But we are chiefly concerned as to how the fluoroscope can be used to advantage in some of the common problems in everyday practice. If one has access to an outfit equipped for both upright and horizontal positions he may get along very well, but a tilting table and an arrangement for a lateral horizontal examination offers some further advantages. Our discussion then is to be chiefly directed toward interesting the practitioner in the fluoroscope as an aid in treatment. In some cases it may be of sufficient aid to transform a major surgical procedure into a minor operation. To illustrate the value of this method allow me to present a few cases from the clinic of the Berwyn Medical Unit.

*Read before the Section on Radiology, Illinois, State Medical Society, Moline, Illinois, May 31, 1927.

D. M., aged 3 months, was brought to the clinic with a second attack of acute ileocecal intussusception, the diagnosis being made by the mother because of a similar attack three months before. This previous attack was unusual in that there was no colicky pain accompanying it, and has been previously reported. The case had been treated by laparotomy in the usual manner and we were now confronted with another major operation much to my chagrin, and the mother's disheartenment. On examination a sausage-like tumor was palpated just under the liver, reaching from above the umbilicus to the right lower quadrant of the abdomen. A few drops of blood were oozing from the anus and there was plenty of colicky pain by the time we saw the patient. It was decided to give a barium enema under the fluoroscope and reduce the intussusception by manipulation if possible. The enema can was elevated about three feet above the patient's abdomen, and the flow controlled by finger pressure on the tube. The barium column ascended without interruption to the middle of the transverse colon where it met the intussusception and its presenting surface took on the typical concave appearance. The buttocks were held together and the tumor mass manipulated with the idea of milking it in the desired direction. As the barium column advanced, a little more was admitted into the bowel to keep up the back pressure. This treatment was continued until the cecum was filled with barium.

No anesthetic was given. The time under the fluoroscope was about five minutes, at the end of which the child was rather exhausted and crying considerably. The barium was allowed to escape. He was permitted to rest about one-half hour when palpation revealed a slightly tympanitic normal abdomen with no tumor mass. The appearance of relief and well being was so marked that no further fluoroscopic observations were made. There were no further symptoms and the child is in perfect health at the present time.

This is the only case I have attempted to treat by barium enema, having used the usual method of reduction by laparotomy in five previous cases, but the results obtained at the first trial are encouraging. Nonsurgical methods of treating ileo-cecal intussusception are not in favor in this country, and I have not been able to find any reports of cases treated by barium enema and manipulation either here or abroad. The available material in America is small compared with Hipsley's recent report of one hundred cases in Sydney, Australia, of which over sixty were successfully reduced by normal saline enemas. Laparotomy was done in sixteen cases where there was doubt as to the result. This probably would not have been necessary had the colon been filled with barium to verify the reduction, a procedure easily accomplished in an infant. Anesthesia could be used to advantage in certain cases as in Hipsley's procedure, but the ether should be removed from the fluoroscopic room before starting manipulations.

Another type of case which lends itself to effective treatment under the fluoroscope is the extraction of certain foreign bodies.

A. H., a girl of twelve years, came into the office with a piece of sewing needle about two cms. long in the palm of the hand. Two films were made, and under local anesthesia and ischemia a small incision was made in the skin and the needle searched for in the ordinary manner, using the films as a guide. The needle was not found after about twenty minutes of searching so it was decided to try the fluoroscope. A mosquito forceps was paced within the skin incision with the point as near as possible to the foreign body, a sterile towel thrown over the hand and the room darkened. The forceps was locked on one end of the needle in less than a minute and the withdrawal made under vision after freeing bits of tissue in the grasp of the forceps.

A boy of fifteen was shot in the anterior muscles just above the knee. The bullet could not be palpated. The wound was injected full of tr. iodine, followed by a few drops of novocaine solution in the skin surrounding the bullet wound. The skin was incised about one cm. and a closed Allis forceps thrust into the opening as far as possible and the fluoroscope turned on. The forceps was pushed against the bullet and opened. The object engaged the teeth of the forcept aided by a little counter pressure, and was easily withdrawn in about the time it takes to describe it. No infection followed and the trauma was minimum. The depth of the bullet was about five cms.

Much more difficult of removal are foreign bodies in the esophagus, and the fluoroscope is suitable for only certain types of cases. The following examples do not in any way minimize the value of the esophagoscope, an instrument which must be resorted to in the removal of many impacted foreign bodies in the gullet. An extensive literature is being produced on the subject, and there are a number of brilliant operators in the field. The endoscope should not be used however when simpler methods will suffice. The following cases will illustrate.

A. M., a boy of two years of age, was carrying a five cent piece in his mouth when accidently it slipped into his esophagus. A film was taken showing the coin lodged opposite the manubrium sterni. He was sent home, the parents being advised to give bulky food to facilitate the passage of the coin into the stomach. The next morning however another observation showed the coin in the same location. The child was accordingly anesthetized with ether and a long curved forceps opening in an antero-posterior direction was carefully

guided into the esophagus by the sense of touch. The tip of the forceps elicited a click when the handles were flush with the teeth, by slightly withdrawing, opening the handles a bit, advancing and closing, the coin was brought up on the second attempt, the first grasp having failed to engage the coin. Gittens has reported a case of fatal infection from trauma in pushing an esophagoscope down on such a case. The instrument went by the coin and it could not be located. No mention was made of the use of any other method. I have successfully extracted an open safety-pin from the lower end of the esophagus by a simple method that may be used without previous experience by the average practitioner.

D. R., a boy of ten months, accidently swallowed a small open safety pin. A pair of films about an hour after the accident was made showing the pin opposite the manubrium sterni. The child was anesthetized and the long curved forceps thrust down into the esophagus under the guidance of the fluoroscope in an attempt to grasp the point of the safety pin. The distance was about one cm. beyond the reach of the forceps, and furthermore the child gulped two or three times and the safety pin descended to the cardis. I then decided on expectancy as the best procedure and took a few observations hoping to see the pin enter the stomach. It did not advance so I took a No. 28 red rubber catheter and pushed it down on the pin but the catheter simply went by the pin which seemed to be firmly lodged in the esophageal wall with the point of the V downward. I then decided to extract the pin if possible through the mouth which I did in the following manner: The tip of the catheter was cut off and a small wire which happened to be the stylet of a small metal catheter was bent at the end to form a small fish hook. The catheter was passed down to the safety pin and the hooked wire down through the catheter. I attempted to hook the loop of the safety pin, but instead engaged it near the loop on the guard side. As soon as I started to withdraw the tube and wire, the safety pin reversed itself promptly and came up with the loop presenting. The total time of the procedure was about three minutes.

Care must be taken in manipulating in the esophagus as the slightest perforation usually ends fatally from mediastinal infection. This is true whether one is working with ordinary instruments or with an endoscope. While expectancy is usually the method of choice in swallowed foreign bodies, a certain number of cases cause fatal perforations of the food passages. This makes it desirable to remove them by manipulation when possible.

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DISCUSSION

Dr. A. H. Parmelee, Oak Park, Ill.: The paper presented by Dr. Stephens has been interesting to me, because it brings up again the question of medical management of a condition long considered in this country entirely surgical. The ingenuity of our predecessors is a source of inspiration. In looking through the literature, it was interesting to me to see what has been done in the past in the treatment of intussusception. I found an old copy of Henroch's "Kinderkrankheiten," printed in 1893, in which he recommends ice water enemas for reduction of intussusception, and speaks of surgery as the last resort. Forceful inflation with air he thought inadvisable on account of the great danger of rupture from too much pressure.

Professor Fischl, of Prague, writing in Pfanndler & Scholsmanns System of Pediatrics, speaking of the recent tendency to open the abdomen, immediately, says, "I hold that this procedure has gone too far, judging from my own experience and that of many others, and would recommend in fresh cases which have lasted only a few hours the careful use of an enema, one quart of luke-warm water allowed to flow from a height of two feet while the pelvis is elevated. Such a child must remain under observation after reduction has been brought about, since intussusception may form very shortly again. In addition, intestinal rest secured by opium is strongly indicated."

Osler, in "Practice of Medicine," cites Wiggin's report of thirty-nine children treated by inflation with enema with sixteen recoveries.

Occurrence is most frequently in young children; fifty per cent. in the fourth, fifth, and sixth months. Seventy-five per cent. are iliocecal, hence amenable to this type of treatment. Those involving the small bowel alone are out of the question. We have a very large proportion which do not come under management until it is rather too late for them to be good non-operative risks. I mean the cases that come after three or four days, or after three or four days diagnosed as intussusception.

The use of an opaque solution such as barium is an enormous improvement over the older, blind method. The attempts at reduction by this method in selected early cases under close hospital observation should save many infants from the shock of surgical procedures. But the man who attempts this method must know the

possibilities of rupture of a friable gangrenous adherent bowel. It would not be a hard matter to cause a perforation. If they are watched under the fluoroscope, possibly that sort of thing could be at least suspected much sooner than with the former method.

I would like to ask Dr. Stephens if he thinks that reduction of an intussusception by a non-operative procedure is more likely to be followed by return than one reduced by operative procedure.

Partial reductions are another danger, with the non-operative procedure; unless one is careful and is absolutely sure that the thing is entirely reduced a great deal of valuable time might be lost.

His diagnostic procedure, diagnosis of intussusception with this characteristic cap or cup which he described seems to me of great value. There are many cases of vomiting young infants, with pain, and with a distended abdomen. Sometimes it makes us sweat blood to know whether that child should be subjected to surgery or not.

In this connection of non-operative treatment of intussusception, showing that others are thinking on the subject, the very last number of the *American Journal of Diseases of Children* has an article written by Dr. Metan, of Syracuse, New York, on the non-operative treatment of intussusception, in which he used exactly the same method in one case which Dr. Stephens used.

Dr. Preston M. Hickey, Ann Arbor, Michigan: I was very much interested in the doctor's discussion about the removal of foreign bodies under the fluoroscopic control. I think that is a measure which has rather fallen into disrepute on account of the pronounced attitude of some of those who practice esophagoscopy. Personally, I have had the opportunity to practice both.

I found oftentimes it was very much simpler to pass the forceps under the fluoroscopic control and remove small bodies from the upper portion of the esophagus than it was to get an assistant, place the head and neck in the proper position and then pass the esophagoscope. I think if one studies the method that is just as safe a procedure as attempting to pass the esophagoscope. That is especially true, I think, if one has the opportunity of using the bi-place fluoroscope.

The fluoroscopic control, in the removal of bullets and needles, I think, is something we as roentgenologists should certainly encourage, because the laceration of hands and feet which occurs when the surgeon attempts to remove foreign bodies without the fluoroscopic control, I think, is sufficient to condemn the method.

Dr. E. G. C. Williams, Danville: Hearing the doctor give his talk about going after these foreign bodies, I imagine that he has a more or less mechanical turn of mind, and I suppose he has some tools at home and does a certain amount of tinkering; and has learned to use the mechanical ability with which the Lord endowed him rather than to depend entirely on the refinement of instruments.

Those of us who have practiced in remote communities have had at times to use our ingenuity and make the best of it. I remember a case when I was far from an esophagoscope or anything, when a child attempted to swallow a 32-caliber shell. It went down open end first and there was no way to get hold of it. I put the youngster on its back, with the head pulled over, with three or four good-sized farm hands to help me. I took a piece of baling wire with a hook and went after the shell and got it out.

Another time a screw went down point first, and you could poke a finger far enough down the child's neck to pull the soft tissue apart and go after it with a pair of forcept and pull it out.

I remember as a youngster a gentleman was celebrating Cleveland's election and tried to swallow a half dollar. He partially succeeded. Old Frank Miller, the blacksmith across the road, made a pair of forceps, a fine piece of work. While most of the community held the gentleman down the doctor went down the fellow's neck and brought up the half dollar.

It has been delightful to have somebody come in and tell us where he has used his ingenuity rather than depending upon fancy instruments.

In a number of other instances I recall difficulties in removing fragments of sewing needles in the hand and foot similar to those cited by Doctor Stephens, but never did I see anyone just reach in and pull out the foreign body in a manner in which his paper would lead us to believe was possible through the use of the fluoroscope. Some of the doctors are skillful in removing foreign bodies, a procedure which takes up many minutes of time, and others are just lucky, reach in and simply pick it out "just like that."

Dr. E. S. Blaine, Chicago, Ill.: The Chair wishes to say a few words regarding the removal of foreign bodies with the aid of the x-ray. The fluoroscopic screen gives but two dimensions, therefore objects which lie in the deep tissues are difficult to grasp with forceps. Until a practical stereofluoroscope is developed the fluoroscopic search for foreign bodies should be discouraged, except in special instances. Until such time we will find the stereoscopic pair of films the most reliable for foreign body search. But even with this aid, defeat awaits the unwary, and even the most experienced surgeon will occasionally encounter a case in which he saw very beautifully the shadow of a bullet or other opaque object, the exact plane on which it lies and then fail to locate it after a long continued exploration. This occurred to no less a great surgeon than the late E. Willys Andrews at Cook County Hospital in my early days as Roentgenologist at that institution. Operating before a class of about one hundred medical students in a gunshot wound of the knee, he extolled and dilated on the superiority of the stereoscopic x-ray which I had previously shown him. After informing the class of how easy it would be for him to just put his forcept on to the bullet, he started to fish for that bullet, but after an hour of search gave it up in chagrin at his failure. He had asked me to move the stereoscope into the operating amphitheater so that each student could get the depth vision of that bullet. The next day the patient was again x-ray examined, also with a stereoscopic pair, in exactly the

same posture as on the original study. There was the same shadow of the bullet in exactly the same location, but with its nose turned in the opposite direction, indicating that the surgeon had repeatedly been in contact with his instruments with the foreign body.

Dr. V. R. Stephens, Berwyn, Illinois: I certainly appreciate the interest shown in what I thought was a very simple and non-technical discussion. There is one point about the safety pin in the lower end of the esophagus. In the last year-book of surgery, the little blue book edited by Dr. Graham of St. Louis, nearly a whole page is devoted to the very highly commendable operation of taking out a safety pin in the same position by doing a gastrostomy, by putting the finger up through the cardia and extracting it through the stomach. I do not think I could do that. It sounds too difficult, but it has been done in case of an impacted dental fixture as well as that of a safety pin.

In regard to intussusception, Dr. Parmelee asked if I thought the recurrence would be greater under the enema than by surgical procedure. I have had but one case of recurrence in intussusception. The one I reduced by barium enema has not since recurred and the same case did recur three months after surgical treatment. I always inspect the entire ileocecal region to be sure it is completely reduced before closing the abdomen. In regard to operative fixation, the statistics do not sound very good to me. One German surgeon lost twelve cases out of twenty in which he tried to fix the ileocecal region so a recurrence would not take place. I do not think that recurrences take place often. They do occasionally, but not often enough to warrant the added operative risk attendant upon any method of fixation.

THE USE OF IODIZED OIL FOR THE X-RAY EXAMINATION OF DISEASE OF THE FEMALE PELVIS*

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The introduction of contrast material to make an organ radio-opaque has made possible the investigation of the gastro-intestinal, genito-urinary, biliary, and respiratory tracts. The examination of the female pelvic organs has, however, been only fairly satisfactory. The plain film was practically useless. With the aid of pneumoperitoneum much valuable data was obtained. The uterus, tubes, and ovaries could be quite constantly demonstrated by contrast against the injected gas. The introduction of the gas either by the trans-abdominal or the trans-uterine routes was a more or less formidable procedure; special apparatus was needed, and the results were good only in the hands of an expert. Occasionally a bad accident occurred and as a rule the patients suffered more than transient pain. The injection of the opaque substances commonly used in x-ray work was unsatisfactory and resulted in some bad reactions. With the introduction of iodized oil a new field was opened up.[1] It is not intended here to discuss the various uses of iodized oil but our purpose will be to describe its uses and discuss its merits in the diagnosis of diseases of the female pelvis.[2]

Although the method is relatively new, numerous reports in the literature have already appeared which would lead one to believe that this simple method of examining the female pelvic organs can yield much valuable information. First reported by Portret and Cotte[2] many publications in which further uses for this procedure were mentioned soon followed. C. Heuser[3] first introduced the injection of iodized oil for the diagnosis of early pregnacy and states that no harmful results follow. E. C. Steinharten and S. Brown[4] suggest that the uterine cavity should be examined by this method before currettage to determine the nature of its contents. Q. U. Newell[5] reported the investigation of the uterus by this method to differentiate between foreign bodies within and outside the uterus. Practically all of the authors mention the demonstration of the normal uterine cavity and tubes, tubal occlusion, intrauterine pathology and other pelvic masses.

Although not very large we are reporting our series of cases because of the many interesting conditions encountered and hope to help stimulate a more widespread interest in this method of examination. In addition we have what we believe is an improved syringe for injecting the oil and will show some lateral views of the uterus injected with oil as means for determining the position of the uterus roentgenologically. The picture of the syringe is self explanatory. Briefly it consists of a 10cc. Vim barrel which is screwed on to a uterine canula at the end of which a pitcock is incorporated. At the curved end a fixed cervical plug is attached. The advantages of this type of syringe are that it is practically

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unbreakable, it does not leak, is easy to sterilize, and lends itself to an easy injection of the oil. The technique for making the exposures is the usual Bucky diaphragm technique for taking the lumbar spine in the A. P. and lateral views. The injection of the oil is simple. The cervix is pulled down, cleansed with iodine, the canula inserted so that the plug fits tightly against the cervical opening and from 5 to 10cc. of the oil injected slowly. When the injection is completed the pitcock is closed to retain the pressure within the uterus, the barrel removed, and the exposures made as soon as possible. We have had no reactions of any degree. A few patients complain of supra-pubic pain for a few hours but none are greatly inconvenienced. There are, however, some precautions which should be observed. The injection must be made slowly, the pressure within the uterus must be maintained until after the exposures are completed because of the tendency of the oil to escape rapidly; one should seldom if ever inject more than 10cc., and the injection should not be made in the presence of an acute or subinfection. It is best to question the patient regarding the date of her last menstrual period as it is very undesirable to do the test within a week before or after a menstrual period, and extremely dangerous in our opinion in the presence of an early pregnancy. The question as to how long the iodized oil which is free in the pelvis remains and its possibility of causing trouble is of course to be considered. We have observed it three weeks after injection and it no doubt remains longer, but we have noticed no ill effects nor have we found any reports in the literature of any. Newell examined the mucosa of normal fallopian tubes ten days after injection and found them normal in every way.

It is not possible in a paper of this type to describe all of the roentgenograms in our series, but it may be of interest to mention the various conditions we encountered before showing the lantern slides. We may mention the normal uterus and tubes, occlusion of one tube, occlusion of both tubes, uterine displacements, pelvic adhesions, distortion of the tubes from uterine tumors, infantile uterus, localization of the site of obstruction in cases of tubal occlusion, anomalies, etc. Other writers have reported intrauterine pathology and a definite cause for some of the cases of essential bleeding has been demonstrated. In some clinics and combined use of the iodized oil and pneumoperitoneum is practiced. I. Stein and R. Arens[6] who first introduced this method have reported a series of cases done in this way and claim that the most information is obtained in this way. Where the apparatus and time are at hand this is undoubtedly true. These authors have also emphasized the importance of spasm of the tubes and have called attention to the advisability of using an antispasmotic at the time of the examination to avoid errors in diagnosis, a point of considerable importance.

In conclusion we believe that the simplicity and safety of this procedure warrants its use more often in the roentgen diagnosis of gynecological conditions and that with more experience many other conditions than those mentioned will be recognized.

SUMMARY

The use of iodized oil in the diagnosis of disease of the female pelvis is a very valuable diagnostic procedure and should be a part of the complete examination wherever possible. Many diseases cannot be diagnosed without it.

A new syringe for the injection of the oil is described which is believed to be an improvement over those ordinarily used for this purpose.

The lateral position of the injected uterus is suggested to determine the position of the uterus when the bimanual examination is doubtful.

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DISCUSSION

Dr. Irving Stein, Chicago: I enjoyed the demonstration by Dr. Brams, particularly since we have been using this particular method also. I think by far the greatest value of iodized oil in diagnosis is in the study of sterility, and in those cases of sterility in which we have used the iodized method, it has been complementary to the patency test. The indications are exactly the same, and the contra-indications are also the same as those that govern the Rubin patency test. The Rubin test is no longer on trial. The iodized test is still on trial. I think as time goes on, if we can prove that there is no damage done to the tubes, uterus, or peritoneal cavity by the use

of the iodized oil, the method will prove to be satisfactory.

I think Dr. Kirklin brought out in the discussion of the gall-bladder the response of the gall-bladder to emotion and to patency and other more or less remote influences. We find particularly that the uterus responds to the least little distention in pressure by contracting.

I wish to refer to the picture that Dr. Brams showed as number 4 of his slides, where there was a deformity on one side of the uterus with the tube occluded which was not a pathologic occlusion. Some of the triangular shadows the doctor showed would, from that point of view alone, incline one to think that the tubes were occluded.

THE COMPLICATIONS OF SUPPURATIVE MIDDLE EAR DISEASE*

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The subject allotted to me by your secretary covers practically the whole field of otology. The complication which we meet most frequently is an external otitis caused by the discharge which seeps out of the middle ear through the canal, which often, depending upon the amount of secretion, causes a great deal of annoyance, and in fact sometimes causes the patient more trouble than the acute otitis media. Sometimes, in children, the ears do not obtain the attention they require. These little patients cry and fight when care is attempted and the resulting struggle does more injury than good with the result that the secretion often causes a dermatitis over the cheek. The condition yields very readily to a salve, but on occasion can become quite serious, not only from the discharge itself but because the canal also swells. The skin in the canal often becomes so swollen that it is difficult to release the secretion from the middle ear, which is likely to cause complications in that region.

The next serious result may be the extension of the inflammatory condition backwards from the mastoid antrum into the mastoid cells. Recently there has been a great deal of discussion, especially among Europeans, as to what this disease is called. We usually call this condition acute mastoiditis, but it appears that some authors call it endostitis. The lining of the antrum and the mastoid cells is not true mucous membrane, but is known as endosteum. This inflammatory condition and inflammation of the endosteum is called endostitis, and the term mastoiditis is not to be used until the bone itself is involved. Kranz, who was the first to bring the subject to our attention, claims that in no case is the bone affected in less than three weeks after onset of the disease, while Mayer just published a long article on histo-pathology of bone chips in thirty cases, demonstrating that as early as four days the bone itself was affected. So we may use our own judgment in the matter of terms. But at all events, any case of acute suppurative otitis may be complicated by an inflammation of the lining of the cells. We all know that, but what shall we do for these cases?

In a child or an adult who has had a paracentesis or a spontaneous rupture, the great question arises as to when do we have a surgical mastoiditis. That is to say, when is that mastoid sufficiently involved to cause one to use surgical interference? This is also a matter of a great deal of discussion and as I have said, most authorities believe it takes three weeks for the cell walls to break down and that unless some other urgent complication arises, no operation should be undertaken before three weeks because by that time the cell walls are broken down and the cavity walled off with the result that the operation is less dangerous. Others, however, say that if there is fever and profuse discharge four days after onset of acute otitis, the mastoid should be opened. In the last two or three years we have seen many cases in our clinic operated on by others and by ourselves in the early stages and I assure you that all the bad results were in those cases that had been operated on too early. We of course do not delay operation if there is some special complication such as a beginning meningitis or a bulging out behind the ear. The time when to operate on the mastoid where there is discharge and some pain in and about the ear is a matter of judgment. I can assure you that it is usually safer to wait for three weeks than to operate in four days. Nature has a way of walling off, and there is a certain amount of protection in the blood which helps to throw off further infection.

If a case of acute otitis media presents itself with a swelling down in the neck or back of the ear, delay of operation would naturally be inadvisable. In such case the sooner operation is

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done, the better. In this problem of when to operate such aids as x-ray, laboratory and blood findings are very important. If a skiagraph is taken of the two mastoids for comparison and they are both found perfectly clear, delay of operation is advisable even though there is a rise in temperature and pain. However, if one side is cloudy or the cells have broken down, early operation is advisable. Without attempting to belittle the value of such aids as x-ray, blood findings, etc., these are only aids in the clinical diagnosis. If our clinical experience teaches us that the mastoid must be opened, laboratory findings may be altogether ignored.

Another complication looked for, especially in children, is a subperiosteal abscess. In these little patients, the cortex being thin, there is scarcely any resistance in this direction. Just a few days ago I had a case of acute otitis media which had a swelling back of the ear. There was no rise in temperature and the child showed its usual activity in play. A small incision was made through the skin and the curet fell into the antrum. A drain was inserted and in a week the child was well. The less that is done in these cases aside from opening them and putting in a drain, the better for the patient. I now wish to take up a more serious complication.

Consider the case of a patient suffering from acute otitis suppurative with a slight increase of temperature, who suddenly gets a chill followed by increased temperature, rising rapidly to 105 or 106, which drops to normal by the next morning. What is to be done in such undesirable but frequent complication? We naturally first think of a lateral sinus involvement. However, that is sometimes erroneous for we have had cases with the aforesaid complication in which intestinal infection was found. Upon cleaning out the bowels the temperature came down to normal. Many other conditions may cause this sudden rise and the question is whether to operate immediately or wait twenty-four hours. In my opinion it would be foolish to operate unless a second rise in temperature occurred. The probabilities are that the second rise of temperature would maintain its increase and in that event exploration of the lateral sinus is the only procedure indicated. Shall we open it up and explore it, or shall we use our judgment in observing the sinus to see what it looks like, or shall we ligate the jugular first. Just recently while in Europe I was given some statistics from the Budapesth Clinic regarding fatalities of lateral sinus thrombosis to the effect that in 60% of the cases wherein the jugular was ligated, the patients died, whereas only 20% were fatal in the cases where ligation was not done. From these figures it would appear that ligation was three times more dangerous than non-ligation. However, that does not prove anything, since the jugulars were ligated as a last resort in unfavorable cases. In the more favorable cases, ligation was not resorted to. In view of these facts it is very logical that in the former group the percentage of fatalities was much higher than in the latter. My suggestion would be that upon exposing the sinus and finding a healthy looking sinus, pulsating with every breath, further interference is contraindicated, since any interference adds that much more danger to the patient's condition. If, however, the sinus is found covered with granulation, these should not be removed and unless there is a sinus thrombosis, the patient will do nicely. Very often we find an abscess around the sinus itself, but not within the sinus. These do well by draining.

How shall we determine the presence of a lateral thrombosis? Shall we puncture the sinus with a needle to ascertain this? We first get a mural thrombosis which gradually fills up and blocks the entire sinus. A needle inserted into the central part of the sinus may withdraw fresh blood and there may, nevertheless, be an involvement there, namely, a mural thrombosis. In such cases, I make a small incision with a knife into the sinus wall and if no bleeding is obtained, it indicates the presence of either a complete or mural thrombos. What is the most rational treatment for a lateral sinus thrombosis? It should be cleaned out completely, if possible, attempting to obtain free bleeding from both ends. The jugular may then be ligated if the operator deems this advisable. The concensus of the majority is that one does better to ligate the jugular. I have seen these cases go along with septic symptoms for a week or ten days and after the jugular was ligated the symptoms cleared up. Of course we usually find a positive blood culture. Sometimes we ligate after the sinus is inspected, but I am not in favor of ligaing before the sinus is inspected as I do not see any necessity for doing that. How does the

lateral sinus become infected? First, by continuity of the bone infection into the sinus; second, by the infection being carried by the blood stream; third, by lymphatics.

Another complication much more frequent than sinus thrombosis is a labyrinthitine irritation. I have seen a case of labyrinthitis as early as the second day after paracentesis, with nausea, vomiting of the projectile type, the characteristic position of lying with the head buried in the pillow, and a nystagmus away from the affected side. This complication appears serious but it all depends upon the character of the labyrinthitis. If the labyrinth itself is not infected, only irritated, these symptoms gradually recede, after about a week, until the patient is free from them. If the infection, however, which is still less frequent than a sinus thrombosis, gets into the labyrinth, there is no resistance and it terminates very quickly in suppurative leptomeningitis. Labyrinthitis may be localized or generalized and the symptoms will depend upon how much is involved. What is to be done? Should one operate immediately in these serous labyrinth cases and drain out the labyrinth? You will see that this would be very foolish, for if we have an acute serous labyrinthitis, we are just adding more danger to the condition. (I was taught that the thing to do was to operate as soon as we got the typical picture of labyrinthitis) and those I operated on passed away very quickly without recovering consciousness. Since then, we have found it a very poor policy. It is always best to wait until this condition has subsided, always a week or ten days after the onset, before doing anything surgically, even on the mastoid. If the mastoid is bulging, it should be drained, a hole quickly bored, letting out the pus. The patient will feel very much better and when he has recovered one can proceed with the labyrinth operation. If the condition continues and does not subside, it is an altogether different story we are dealing with, it is a serious problem, a suppurative labyrinthitis which develops meningitis or death, so that nothing is lost by operating immediately. I have seen very few done except in extremis, generally in the last stages and beyond all help, but I have seen a few cases recover where we found absolute diagnostic points, cloudy spinal fluid and high bacterial count in the fluid itself.

There is another complication that I might bring up at this time which seems to be the most talked of complication. There has been more discussion about this in the last year or two than anything I know of, that is a complication of cholera infantum in children. Whether this is a complication of acute otitis or whether the mastoiditis is a complication of cholera infantum in children has not been settled, but all of you who have been reading the literature during the past year or two know that marvelous results are obtained by quickly opening the mastoid, even in the presence of very little infection in the mastoid. Dr. Lyman of St. Louis gave a report of a number of cases, practically all of which died who were not operated upon. They were all small children, and some had practically no mastoid symptoms, others had a slight redness of the drum, but when they opened the mastoid the temperature receded to normal and the children recovered completely. The otologists serving in the wards of children's hospitals report very favorable results, while on the other hand reports from other otologists indicated that all patients with these symptoms who were operated on died. In some instances they found no mastoid symptoms, and found no pathology when they operated. The mastoid was perfectly normal and the children died. Where they did find the mastoid involved, the results were remarkable. I have never seen one case, though I have been looking for them in the past few years.

Another complication we meet is acute suppurative meningitis. The course of this is, acute otitis, mastoiditis, labyrinthitis and finally meningitis, all the clinical symptoms present, and in these cases it is a question of what to do when meningitis is developed, whether to treat it surgically, by opening the mastoid and labyrinth and draining same or whether to put the case in the hands of the neurologist and have him treat the intraspinal canal. If bacteria are found in the spinal fluid, they practically all succumb. We have seen a few cases that have lived, with a clinical picture of meningitis, but with no bacteria in the spinal fluid.

Other complications one may get are brain abscesses, extradural abscess, cerebellar abscess. It is easy to explore around and see if an extradural abscess is present, but the brain abscess and cerebellar abscess are not easily determined

at times. If we have a progression of the symptoms outline, the patient in a comatose state, all the symptoms of intracranial pressure and other symptoms, we must think of abscess of the brain. There are often no focalizing symptoms and it is very often discouraging to go in and not find the abscess, and then a few days later at post mortem find an abscess on the other side, large enough to put your foot into. We had a case in which we called in two neurologists to localize the abscess. One said it was in the temperosphenoid lobe. We explored and found nothing. We called another neurologist in consultation who localized it in the frontal lobe, but we were unable to find it. The following day the patient died and at post mortem we found a large abscess as big as a goose egg in the temperosphenoid lobe opposite from that localized by the first neurologist. It is often difficult to get enough focalizing symptoms to localize a brain abscess.

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DISCUSSION

Dr. George Boot, Chicago: Contrary to Dr. Pollock's experience, I have seen two cases with findings of streptococcus in the cerebro spinal fluid recover. I had one recover where there were over 30,000 cells. We recently had at the County Hospital a child with otitic streptococcic meningitis that had every appearance of going to recover when he developed a pneumonia. I recently operated on a child who had had measles. She did not do well after the operation. The ear continued to discharge profusely. She complained of headache, vomited occasionally and became very much emaciated. She had spontaneous nystagmus looking to the left, and when we tried past pointing the right hand would come down steadily, the left would come down with an ataxia every time. The left leg also came down with an ataxia. I am sure there was cerebellar involvement on the same side. She was transferred to another hospital where a cerebellar abscess was found on operation.

A woman of 30 had a right sided earache with discharge. Suddenly her temperature shot up to 106 then fell to about normal in a few hours. There was a moderate amount of discharge but practically no tenderness. She had an acute rhinitis and the mucous membrane was decidedly congested and dry. The next day the temperature was up to 104 and then dropped to 99 and she began to have a decided arthritis of both knees. Still I could not convince myself that she had a mastoiditis. I waited another day. The temperature shot up, but the ear was better. The temperature dropped again, and next day shot up again and the ear kept on improving. There was no change in the eye grounds, nothing to be found in the neck and there never had been any chill. We finally came to the conclusion that she had inflammatory rheumatism in both knees, which was due to infection in the upper respiratory tract.

Dr. C. W. Hawley, Chicago: This paper is on the complications of otitis media. He has given you about all that anyone could say on the subject. I would like to take a little divergency. I happened in the operating room the other morning where two men were operating on a mastoid. One was a man of considerable experience, the other just learning. A number of years ago I did some anatomic work on 250 mastoids, and this man knew that, and he asked me to come in and look at the case, and this is what I found. They were operating on a mastoid in which the lateral sinus lay up against the posterior wall of the ear. They had already removed part of the bone. I showed them how to get at that antrum, and if you will excuse me I will show you what we did. One man thought we went into the antrum and they were going to leave it there. (This was something drawn on the blackboard). They were really in a cell. You must go into the ear and very carefully locate the superior portion of wall of the ear. Then the antrum may be found a little higher than usual. Don't try to do the work with a large curette. Use a very small curette and a very small chisel. This abnormality occurs more frequently than we suspect. I have met several cases where the lateral sinus was very close to the posterior wall. Some of the younger men who do not know how will be in as much trouble as these men were the other day, and I think it was fortunate for the patient that I was there.

Dr. J. A. Cavanaugh, Chicago: Speaking of foreign bodies in the external auditory canal, I have seen two cases in the last year. One, a case where a bed bug had gotten in the external auditory canal and when it touched the ear drum the patient would go into hysterics and roll over on the floor. The bug could be seen in the canal. It is very easy to destroy insects by placing a little chloroform on a pledget of cotton and placing it in the canal. Another case, a child had inserted a stone in the external auditory canal. An anesthetic had been given and an attempt made to remove it and when I saw the case the canal was swollen and the hammer handle lay on the floor of the canal. The stone was removed by making an incision post auricular, splitting the periosteum. It is very important in removing foreign bodies to keep in mind the position of the drum.

Dr. Sheldon Clark, Freeport: The complications of mastoid disease may be many. Dr. Pollock speaks of the simple complications. I think we are prone to look only for the larger things that may occur and not pay due attention to the simpler things. I had one complication of the skin of the ear canal and the side of the face due to acute mastoiditis that caused more trouble than the disease itself. It was a mastoiditis due to swimming, and after opening the mastoid the patient developed a severe dermatitis. I tried all sorts of treatment but was unable to get it to subside. I stumbled on to the fact that it might

to due to some sapyophytic infection and discovered it was. By using sugar I caused it to subside very quickly. This is what the good house-wife does when she uses sugar in her canning of fruits.

Dr. H. B. Young, Burlington, Iowa: Among the problems in suppurative otitis media was a case I had when the x-ray picture was not available. The pus came from a small perforation post superior quadrant; puffiness of the post-canal wall; tenderness over the mastoid; and nocturnal pain. On opening the mastoid antrum I did not find the pus and bone involvement I expected to find; but for five days all went well. Then the nocturnal pain returned, and, next morning, there was a lump on the posterior border of the sterno-cleido-mastoid. A misapprehended "Bezold" was now the verdict. The wound was re-opened, the tip cell exenterated, the digastric fossa explored through an opening back of the muscle, and still no pus. Again, for three days, everything was lovely. Then, although the ear was dry and the wound healing, the nocturnal pain came back,—hard. A colleague (general practitioner) then suggested 30 grains of quinine in divided doses, at 6, 7 and 8 P. M., and it worked wonders. In another three days the patient was well enough to go home.

Another problem of a different kind.

This time a call from a colleague, in the country,—an all day trip in the winter, to make a mastoid operation. When I had examined the patient I felt that an operation was, not yet, justifiable; and it was then up to me to square my colleague with the patient's family. I think I did this rather well; and there was a recovery under the treatment already inaugurated. But my colleague has never, since, asked me to see any of his patients.

Dr. Harry L. Pollock, Chicago: Facial paralysis is also a complication of acute otitis media. One sees it quite frequently following such a case, but it clears up when the mastoid is operated on. I would add that I have never had a case of the type cited by Dr. Boot.

SOME FEATURES OF BRONCHOSCOPY AND ESOPHAGOSCOPY*

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Direct laryngoscopy, bronchoscopy and esophagoscopy can only accomplish their best when the bronchoscopist works in harmony with the general physician, the pediatrician, the roentgenologist and the surgeon. The internist and pediatrician see this type of case first, and should be trained in their symptoms. They know the physical signs of pulmonary involvement better than the bronchoscopist. The roentgenologist should be trained so that he is capable of interpreting the x-ray pictures. He also furnishes fluoroscopy.

In this field the treatment is done mostly by the internist, and the surgical work by the surgeon. This type of work is all done per oram, even when a trachectomy has been previously performed for some other reason.

There are two methods of performing bronchoscopy and esophagoscopy, namely: direct and suspension. The direct method is the better as it causes less inconvenience to the patient. However, it requires a trained assistant who knows how to hold the head and neck. A fixed system of procedure is not only of value as a time-saving element, but in the case of an emergency, if each assistant is trained in one duty, time and therefore life can be saved.

For the bronchoscopist to have a thorough training, a full set of instruments and scopes is necessary. It is vitally necessary also to have a proper technique, and this can be acquired only by constant practice. It has been said by Chevalier Jackson that no one can master bronchoscopy. It is almost certain to kill the patient, especially a baby, if an inexperienced person in this line orders a bronchoscopy in an emergency and attempts to remove a foreign body. Furthermore, the chances are that the foreign body will not be removed. Bronchoscopy is a specialty within a specialty. For the specialist in this line it is necessary to have mechanical knowledge as well as good vision.

Many physicians think that the removal of foreign bodies is the whole field of bronchoscopy, whereas a branchoscopic clinic such as Dr. Jackson's in Philadelphia, there is one foreign body case to fifteen treatments. This work consists mainly of treatments for laryngeal stenosis, removal of laryngeal growths for diagnosis and treatment, bronchial asthma, bronchiectasis and lung abscesses, in the proportion as follows: four or five laryngeal stenosis, one or two laryngeal growths, two or three bronchial asthmas, and six or eight cases of bronchiectasis and lung abscesses. In this clinic they also have six or eight cases of esophagoscopy, one case of a foreign body, and five or six of esophageal stenosis, which are usually in children. Children under twelve should receive no anesthetic, local or general; over twelve a local application of 10% cocaine should be given to the laryngopharynx. In foreign body

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cases for adults morphin sulphate is used. For children paregoric is used.

Most foreign bodies are simple problems at first, but the mother, the patient, or the physician attempts removal and the foreign body drops into the esophagus, or the tracheobronchial tree, and the case is made very much more difficult and dangerous. The esophagus with its hundreds of folds and ease of perforation makes the problem difficult and dangerous. The bronchi, with upper lobe branches and secondary and tertiary branches of the lower lobe, make it very difficult, especially to remove a pin or a needle.

Laryngeal stenosis is most commonly post diphtheritic as diphtheria tends to necrose tissue. Stenosis is also caused by coasting accidents and high tracheotomy, especially associated with an improperly fitted tracheal canula. A high tracheotomy saves the patient's life, but it is better to do a low one first. By high tracheotomy I mean a tracheotomy through the thyro-hyoid membrane, the thyroid cartilage, the crico-thyroid membrane, the cricoid cartilage or the first two tracheal rings. A tracheotomy through the first two tracheal rings, because the conus elasticus does not tolerate the tracheotomy tube but swells and causes stenosis, is inadvisable. High tracheotomies are emergency ones which show there is a tendency on the part of the doctor to delay tracheotomy too long, and then an emergency operation is done which is usually a high tracheotomy. A tracheotomy should be a quiet, orderly procedure, performed under a local or no anaesthetic, and it should be done when the child is restless and unable to sleep, as every time the child tries to fall asleep, it awakens because of insufficient air. The accessory muscles of respiration are working. One notices indrawing of the supra-sternal, supra-clavicular, intercostal and the region of the ensiform cartilage. The physician too often waits until the child is blue from insufficient air or turns grey, which is cardiac failure. The turning grey is sometimes mistaken for a good sign. Low tracheotomy not only gives the child the necessary air, but it allows the child to sleep, recuperate, and also it puts the inflamed larynx to rest, and rest to the inflamed larynx is of great benefit. Tracheotomy is preferable to intubation in laryngeal diphtheria, though sometimes tracheotomy and intubation can both be avoided by aspirating the secretions and membranes.

In Ludwig's angina or cellulitis of the neck when a tracheotomy is indicated the bronchoscopic light in the trachea orients the physician. Some general physicians hesitate to have a tracheotomy performed for fear of pneumonia, but penumonia does not follow a tracheotomy if it is properly treated. A properly performed tracheotomy implies low tracheotomy, incision exactly in the midline, proper size and curve of tube, and attention to tracheal and bronchial secretions, also no stitches.

Lung Suppuration. Under this head are bronchiectasis and lung abscess. The etiology of bronchiectasis you all know unless perhaps we don't all realize the importance of sinus infection draining downward into the tracheobronchial tree. The etiology of lung abscess is pneumonia, influenza and postoperative, gangrene of lung is when the putrefactive bacteria contaminate. Lung abscess is often diagnosed tuberculosis, bronchitis, bronchiectasis and sometimes empyema and gangrene. One can differentiate from empyema, for in empyema the fluid level shifts. For further information on lung abscess I shall refer you to Volume LI, ILLINOIS MEDICAL JOURNAL, April, 1927, an article by Dr. Peter S. Winner.

The bronchoscopic treatment of lung abscess where the abscess empties into a bronchus, as it often does, consists of the aspiration of pus, and instillation of antiseptics, combined with the use of a vaccine. Bronchoscopic aspiration when combined with postural and antitubercular treatment and instituted early gives the best results. Bronchoscopic aspirations are performed twice a week, but are gradually lessened as the patient gains in weight and strength, provided the physical signs and the amount of secretion are diminishing. The bronchoscopist can aid the roentgenologist by means of bronchoscopic insufflation of bismuth, or instillation of lipiodol. Under bronchoscopic aspiration the recovery of children is 100%. In adults there is no way of knowing, until treatment is tried, whether or not they will recover. However, the lower half of the left upper lobe and the left lower lobe do not respond to treatment as well as the other lobes. Bronchiectasis as a complication of lung abscess decreases the chance of recovery. Bronchoscopy is contra-indicated in (a) cases of recent hemorrhage, (b) a moribund patient, (c) very extensive disease of lung tissues, involving one-half

or more of one lung, (d) organic disease of the heart and great vessels, (e) laryngeal tuberculosis. Patients are willing to continue the treatment as it lessens the cough and decreases the foul expectoration. Bronchoscopic aspirations should be stopped during acute infections.

Asthma. The internist should rule out cardiac and renal asthma; the bronchoscopist should treat only bronchial asthma. Autogenous vaccines are made at the first bronchoscopies. The following formula is used: 20 drops of a 1-1000, 10 drops (10%) cocain; normal salt solution 1 drachm. If thick, tenacious secretion is present it should be removed. Bronchoscopic instillation of medicated solution seems to relieve asthmatic attacks for a relatively long time. A diagnosis of asthma in a child should never be made unless foreign body is first eliminated.

It is not known why bronchoscopic aspirations of small amounts of secretion relieves in asthma.

Drowned Lung. A condition in which the secretions of the lung are retained distal to an occluded larnyx trachea or bronchus is called drowned lung. Drowned lung occurs in children with foreign bodies, results following tracheotomy, or laryngeal obstructions following acute infections. It is especially prone to occur in very young children as the cough reflex is not well developed, and they soon tire. Even in adults large amounts of secretion are found following severe coughing spells.

There is a type of bronchitis due to spirochetosis which responds to arsphenamine, and bronchoscopic aspiration.

Esophagoscopy. Esophagoscopy is more difficult and dangerous than bronchoscopy. It is more difficult because of hundreds of folds and the presence of secretion, and the walls are collapsed. It is more dangerous (a) because of the ease of perforation, (b) normal esophagus is septic. The dangers resulting from perforation are: septic mediastinitis, and the perforation of great vessels. Most esophagoscopic work is treatment rather than the removal of foreign bodies. The most common treatments are treatments for stenosis in children, resulting from strictures following the accidental swallowing of lye, lysol, carbolic acid, tincture of iodine, washing powder, etc. This treatment is esophagoscopic using the graduated bougies. In cases of extreme emaciation or water hunger gastrostomy is indicated at once, which is followed by a period of rest for the esophagus, then retrograde esophageal bouginage is begun.

Hematemesis. The etiology of hematemesis is carcinoma, tuberculosis, gastric ulcer, ulcer of the esophagus, varicosities, foreign bodies, aneurysm, and benign tumors, etc. Here as elsewhere the whole field of inferential methods of diagnosis are subject to a large per cent. of error, as the source of blood may come from the racheobronchial tree or the larynx and be swallowed before it is regurgitated.

Malignancy. Rare in the tracheo-bronchial tree or lungs but more common in the esophagus or stomach. Malignant disease of the esophagus is characterized by fixation, and continued resistance to the onward passage of the esophagoscope. It also has its peculiar x-ray and fluoroscopic findings. The mucous membrane may or may not be involved. If it is involved the taking of a specimen is indicated for diagnosis. Blind methods of treatment are especially contraindicated in the esophagus. Guisez says "sooner or later all patients are killed with the esophageal bougie if the blind method is used."

Spasm of the esophagus:

(a) Cricopharyngeal spasm.

(b) Cardiospasm.

Most of the cricopharyngeal spasmodic cases are unassociated with the feeling of a lump arising in the throat, called globus hystericus, and have no association with hysteria. The esophagoscopic appearance of cricopharyngeal spasm may not be any different from normal cricopharyngeal spasm on introduction of esophagoscope.

Cricopharyngeal spasm is due to functional neurosis or organic pathology of chest or esophagus. The treatment of functional cases consist of dilatation and the treatment of cases with an organic base consist of removing organic cause, near or remote.

Cardiospasm occurs at the level of the diaphragm and is phrenospasm according to Dr. Chevalier Jackson, or as he now believes is more of a failure of the esophagus to open than a spasm. The dilitation of the peristalsic wave is absent.

The etiology is functional or organic disease. The organic disease is either near or remote.

The diagnosis of cardiospasm is made by the esophagoscope, the x-ray and fluoroscope.

In carcinoma of the esophagus one either sees

the growth and takes a specimen for microscopic examination or if the mucous membrane is not involved the esophagoscope meets fixation of the esophagus and continued resistance through the constricted area; while in cardiospasm the whole area of closure of esophagus opens at once, with only normal resistance.

The treatment of cardiospasm of the functional type is dilatation by the passing of an esophagoscope. The treatment of cardiospasm caused by an organic base is removal of an organic base.

ECONOMICS IN ROENTGENOLOGY

CHAIRMAN'S ADDRESS, SECTION ON RADIOLOGY.

EDW. S. BLAINE, M. D.
CHICAGO

Fellow roentgenologists, radiologists, ladies and gentlemen—We are assembled together as the section on radiology of the Illinois State Medical Society, newly created by the House of Delegates. This occasion marks the opening of the initial session of the section and your Chairman looks forward with confidence to a successful, interesting and profitable meeting to those in attendance whose special interest is that of x-ray and radium practice in medicine and surgery.

The creation of this section of the Illinois State Medical Society in response to representations made by members engaged in these specialties constitutes, in a measure, a recognition of the important place that x-ray and radium occupy in the modern practice of medicine. It is fitting that this evidence of increased appreciation of the part that the roentgenologist and radiologist play in the diagnosis and treatment of disease has culminated in the formation of this Section on Radiology. Here the results of scientific endeavor and individual experience in these specialties may be presented in satisfactory form for the dissemination of information leading to the enhancement of diagnostic and therapeutic values to the ultimate recipient, the patient.

In these introductory remarks, a few words concerning certain phases of the economics relative to the practicing roentgenologist seem timely. The earliest x-ray workers were electricians, partly because of the nature of the apparatus necessary in the production of the x-ray and partly because the average physician of the late nineties had little or no experience with electrical contrivances. But it was soon evident that, in its application to the human individual, normal and abnormal, this work must be done by a physician and not by a layman, inasmuch as the end product of the procedure is a medical opinion based on x-ray shadows. The x-ray film or plate was a necessity but was only incidental to the report of its indications in terms of anatomical conditions, normal or pathological.

In some quarters the physician roentgenologist was and sometimes still is looked upon by the practicing physician as a technician who produces x-ray pictures per se and not, as he should be, a medical consultant who assists in arriving at a diagnosis by the aid of the x-ray. In other quarters the referring physician and surgeon still patronizes the lay x-ray operator often unwittingly, not realizing that they are sending their patients who require this medical procedure to one outside of the profession, forgetting that the term "x-ray examination" in its generally accepted significance means an x-ray study and interpretation, not x-ray pictures, per se.

A roentgenologist or radiologist worthy of the name is first of all a physician graduated and accredited after several years of medical study who has prepared himself in the intricacies of the technique of x-ray physics, has become skillful in the care and handling of x-ray apparatus and has become proficient in the interpretation of x-ray shadows on the finished films or the fluoroscopic screen.

He inspires the confidence of the referring physician in proportion to the accuracy of his shadow interpretations as checked up by operative or post-mortem findings and his reports are entitled to the same consideration that is accorded the report of the pathologist or other medical specialist of like standing.

The day is passing in which the physician judges the ability and value of the roentgenologist by the photographic quality of the x-ray films that he produces, and the sending of patients to lay x-ray operators and technicians is fast declining because it is becoming more and more evident that this is as irregular a practice as is the sending of patients to lay bone setters, chiropractors and the like, and is fully as reprehensible.

The dictum may be made that no x-ray inter-

*Read before the Section on Radiology, Illinois Medical Society, Moline, Illinois, May 31, 1927.

pretations should be made by a layman and no physician should accept such a report. In hospitals of small size in small communities it is not practical for a specialist in roentgenology to locate. In such cases all x-ray films should be sent to a consultant roentgenologist for interpretation at the nearest medical center. Small hospitals in large cities manifestly cannot profitably engage the full time services of competent physician-roentgenologists, but they can obtain part time attendance, or can send the x-ray films to the roentgenologist's office for interpretation. Thus the roentgenologist is just as close as is the postman with but a small delay in time. Emergency interpretations can be made by the physician on the case particularly as the more recent graduate in medicine has been given general instruction in x-ray interpretation.

When all physicians realize the economical error of sending their patients who need x-ray studies or treatments to laymen and lay operated commercial x-ray laboratories, then and then only will these interlopers in the medical profession cease to exist as such for they cannot profit except by the direct assistance and support of the referring physician. If all physicians will recognize the true ethical situation and thus decline to send any of their patients to a layman x-ray technician, the commercial x-ray lay operated laboratories will cease to exist.

When this happy condition comes to pass, then will we see the young physician of ability who prepares himself for this specialty make the progress that is now often denied him because the referring physician continues to support the layman. It has several times occurred that deserving and well qualified young physicians, were denied the support to which they were entitled by their medical confreres who continued their support of lay x-ray operators whose income tax returns so often reveal a large patronage which can only come from the practicing physician. The busy roentgenologist cannot perform all the technical details of the routine x-ray work; therefore this phase must be done by lay technicians trained for the work. These technicians are most often recruited from allied medical workers such as trained nurses. That they are necessary in proper x-ray procedures is undebatable and they should be of the highest skill possible in order to assure the best technical results, but a sharp delimitation occurs, namely, the interpretation of the x-ray film, which actually is a medical diagnostic procedure within the meaning of the term "practice of medicine." The highest type of x-ray technician will decline to make an interpretation or give an oral or written opinion on any x-ray films, because he knows that if he does so, he is competing with the physician-roentgenologist who oftentimes was his teacher and frequently is his employer. Many physician-roentgenologists of high repute prefer x-ray technicians who are registered with the "American Registry of Radiological Technicians," each one of whom signs an agreement "not to do x-ray work independently or to give oral or written diagnosis and to work only under a physician in good standing." If all roentgenologists would engage the services of only registered technicians this spectre of competition by those he has himself trained to proficiency will no longer confront us.

Another phase in the economics of roentgenology which is slowly undergoing a change is the sending of patients for x-ray services where the fees are the cheapest. In many such instances the referring physician does not appear to be concerned whether his patient will receive the best possible medical roentgenological assistance obtainable only by thorough and at times extended x-ray study, or whether the interpretation is backed by large experience and proven ability. The lay operated x-ray laboratory which so often offers rebates to the referring physician is but a degree less guilty than he who sends his patient to such places.

Thorough x-ray examination requires the use of much costly material and valuable time. Cheap fees result in restricting the service to the patient who thus is the loser. The conscientious physician having his patients' best interest at heart, will not make this error.

The formation of this section on radiology brings the practice of x-ray and radium into the foreground in Illinois medical activities. The roentgenologists (radiologists) of Illinois will be found to be quite alive to the opportunity afforded them to demonstrate the qualifications to meet with other specialties which have been similarly recognized as important branches of medical practice.

5 South Wabash Avenue.

SALIVARY CALCULI*

JAMES E. LEBENSOHN, M. D., F. A. C. S.,
CHICAGO

In disorders due to salivary calculi, the diagnosis can generally be easily made, if the possibility of this condition be only kept in mind. However, these cases, though not uncommon, are seen so infrequently, that they often are not recognized until after the patient has been tormented by much needless suffering, as is illustrated in the following experience:

Case 1. A male, age 22, consulted his family physician because of pain in eating and swallowing. A swelling below the left angle of the jaw was noted and attributed to pharyngeal infection. After eight days, the patient was referred to my attention, as his discomfort in the meantime had become exceedingly severe. No cause for his trouble could be located in the nasopharynx. An adenoid pad was present, and remnants of tonsillar tissue, but neither displayed any inflammatory reaction. The patient was next directed to tilt his tongue upward, when pus was seen oozing from the papilla of the left Wharton's duct, which increased in quantity on pressing the swelling at the jaw angle. The duct region was very much swollen by inflammatory edema, and no stones could be felt with the finger. I made a presumptive diagnosis of infection of the duct and submaxillary salivary gland, secondary to a calculus, and decided on an exploratory incision of the duct. Had this failed to reveal stones, the more formidable procedure of resection of the submaxillary salivary gland would have been indicated. An x-ray would have been valuable to confirm my diagnosis, and would have been ordered, if complete success had not attended the duct incision. Cocaine 10 per cent was applied over the duct, and a little novocain injected over its course. Instruments designed for use in lachrymal duct operations were found very suitable. A Critchett's grooved probe was introduced in the duct, and the incision made over it with a Graefe knife. A lachrymal probe introduced through the proximal end of the incision clinked on a calculus. With a small lachrymal curet and finger pressure, eight calculi, faceted and about the size of cherry stones were removed, together with considerable gravel. Immediate relief from tension was experienced; pus discharged from the wound for three days, and uneventful recovery followed.

The following two cases had also, previous to my examination, been diagnosed and treated as submaxillary lymphadenitis:

Case 2. A woman, aged 30, had had coryza with some ear pains, and shortly afterward noted a swelling under the tongue, associated with a swelling in the right submaxillary region. The patient consulted me after these swellings had persisted for three weeks. The nose and ears were at that time negative. A marble like swelling was present near the papilla of the right Wharton's duct. The right papilla was more patulous than the left, and the stain of mercurochrome stayed on it longer also. A diagnosis of salivary calculus was made. It was easily extracted by a linear incision, and manipulation with finger pressure and a tiny spoon curet. The stone, which I fortunately kept as a specimen and am now presenting, was 1.5 cm. long, and 0.8 cm. in diameter, and shows on one aspect the impression of the duct. On the day following the operation, the patient reported complete comfort.

Case 3. In 1923, while I was associated with the U. S. Veterans Hospital at Maywood, a man, aged 26, was referred from the medical wards for a persisting, painful submaxillary gland enlargement. This enlargement varied in size from time to time, and was particularly troublesome at meals. On examination, a granule was visible at the mouth of the left Wharton's duct. By finger expression, the duct was emptied of 5 tiny stones. No incision was necessary and complete recovery followed.

The relation of the glandular enlargement to meals is not always remarked by the patient. In a case of calculus in Stenson's duct, this symptom was so definite as to enable me to make the diagnosis on the history:

Case 4. In 1917, a sailor on the U.S.S. South Carolina came to sick-bay complaining of a painful enlargement of the right cheek after meals. My finger inside the mouth readily felt a small calculus near the papilla of Stenson's duct, which was easily removed. Complete subsidence of symptoms followed.

Salivary calculi, otherwise known as sialiths, are formed about a nucleus of foreign matter that has found lodgment in the duct. This nucleus may be a colony of the mouth fungus, leptothrix buccalis. The submaxillary salivary gland is most often affected, the parotid next, and least frequently, the lingual. The stones are composed mainly of the carbonate and phosphate salts of calcium. Cases have been reported in which the calculi have weighed as much as 34 gm., and 67 gm. respectively.

The symptoms vary. In some patients there are periodic attacks of pain, increased by mastication (especially when acid food is taken), with no discomfort in the intervals. When secondary infection of the duct and gland take place, there is extreme pain, and marked induration.

Conditions due to salivary calculi have been mistaken for simple lymphadenitis, actinomycosis, Ludwig's angina, mumps, and dental root

*Read before Section on Eye, Ear, Nose and Throat, Illinois State Medical Society, Moline, June 1, 1927.

abscess. However, careful inspection of the puncta and ducts of the salivary glands, assisted by digital examination and sounds, will generally make the diagnosis. In cases of doubt an x-ray should be taken.

The treatment is purely surgical.

25 E. Washington St.

DISCUSSION

Dr. C. F. Yerger, Chicago: My experience with salivary calculi has been limited to seven cases; four were calculi in the submaxillary gland proper, two were lodged in the duct of the submaxillary gland and one was in the parotid gland. The incidence of salivary calculi is very much greater in the submaxillary gland and duct than in the parotid gland and duct. In one of the cases the stone in the submaxillary duct was removed spontaneously through the wall of the duct by the process of pressure necrosis and ulceration.

The treatment of these cases is very simple in the cases of calculi in the salivary ducts, by incision and removal of the stone; it is not so easy, however, when the calculus is lodged in the gland; in the later case there is usually associated infection and more or less destruction of the gland structure. This must be attacked from the outside, the sequelae of which may be an unsightly cicatrix, facial paralysis or salivary fistula. Where it is possible to remove the gland in toto as with the submaxillary, this should be done; in the case of the parotid gland, this cannot be done without a resulting facial paralysis; in these cases it is better not to attempt complete extirpation of the parotid gland, but simply remove the stone and treat the subsequent salivary fistula.

Dr. J. E. Lebensohn, Chicago: I am very happy that my paper has been so ably discussed. In the case of multiple stones mentioned, I think they were close to the gland substance. I had to pass the probe quite deeply into the end of the duct before they were removed. The stone assumes the size and shape of duct and may be fully two inches long and show a definite impression of the duct. The resection of the submaxillary gland offers no difficulty except that the nerves on the floor of the mouth must be avoided.

THE PROSTATE AS A SITE OF FOCAL INFECTION*

JAMES V. BEYNON, M. D.

ROCKFORD, ILLINOIS

In the presentation of this paper I make no pretense of presenting any new procedure in the treatment or diagnosis of the prostate but merely present it as a correlation of facts that are of common knowledge to those specializing along these lines, but strange to relate they are facts that are sadly overlooked every day by those engaged in general work or in lines other than that of urology.

No doubt most of you know just how many tonsils your patients have in the place where a great many more should be, but how many of you can truthfully state the exact condition of the prostate in 5% of your male patients and more so the condition of the prostate of those who present a picture of focal infection.

When I speak of the prostate I have in mind also the seminal vesicle, for the two are so intimately associated that one very seldom finds a case without co-existent disturbances, and what I have to say regarding the prostate applies almost throughout to its conspirator in the production of systemic disease.

When in search for localization of focal infection in the male, every male over the age of sixteen must be considered a potential candidate for prostatitis, and no case of suspected focal infection in the male can be said to have had a thorough and proper consideration of all possible focal infection localizations until the prostate has proven itself innocent or guilty.

Do not misunderstand me and think that I believe you must insert your finger into every male rectum venturing into your office, but do consider the prostate in every obscure blind case.

Quite frequently one questions the real significance of the focal infection theory when you experience a case in which you have removed or advised the removal of all of the more common parts of the human anatomy wherein focal infections usually repose and after you have separated your patient from the tonsils, teeth, appendix, etc., you are discouraged and your patient disgusted and disgruntled.

So it seems that we must look further or might I say deeper or lower for new sites of focal infection in obscure cases and to get to the bottom we must go to the seat—I am speaking literally now, for often a rectal examination may reveal the offending part in the prostate gland which heretofore has escaped accusation.

And again in cases with positive findings elsewhere which improve temporarily after cleaning up the same, the prostate will be found quite frequently playing the role of the second offender due to a prostatitic infection having localized

*Read before the Section on Medicine, Illinois State Medical Society, Moline, Illinois, May 31, 1927.

through a metastatic infection transmission prior to the cleaning up of the original infection, and persisting after the disposal of the same.

Prostatitis is more prevalent than is usually considered, being estimated at about 35% of all males, while Hugh Young states that it is as prevalent as gonorrheal urethritis which would of course bring it up to a much higher percentage.

In a case where there exists a definite history of venereal disease, which if truthfully given, would be more frequent, the prostate is more readily considered, but unfortunately, quite a number of infected prostates give no history, and truthfully so, of venereal infection, and surprisingly show a chronic prostatitis which when eliminated proves itself to have been the site of a deep-seated and obscure focal infection—in the Mayo Clinic, 1,627 patients afflicted with chronic prostatitis, 76% gave a positive history, 4% had an indefinite history, and 20% emphatically denied any previous venereal history.

In a case where a focal infection has not yet been ferreted out, one must look into the history in an attempt to find a basis for a prostatic localization, and accordingly must recall for consideration the more common etiological factors in the production of a condition which would cause the prostate to be less resistant to the localization of foci of infection.

So may I be pardoned if I hurriedly run over a few of the most common mentioned factors:

(a) Urethritis
  1 Specific or G. C.
  2 Non-specific.
(b) Infectious diseases
  Influenza, Pneumonia, Typhoid.
(c) Metastatic infections from remote foci.
(d) Contact
  1 Through bowel wall.
  2 Through Bladder.
(e) Sexual abuses
  Excessive normal act.
  Perversion.
  Unsatisfied erections.
(f) Age
  Pre-prostatic age.

(a) Urethritis:

1. Specific or G. C.

Of course a history of positive venereal infection is of considerable aid in weighing the prostate as a focal infection site, and naturally more so if the history is of a recent one, but one must also bear in mind that a gonorrheal infection may remain latent for some time and suddenly flare up as a true gonorrheal infection, or more likely as a mixed infection minus the gonococcus.

2. Non-specific.

This type is a common type in a urological practice and very frequently is overlooked because of the negative history of venereal disease or illegitimate sexual intercourse.

(a) Often due to coitus with a wife afflicted with a severe non-specific vaginitis, an erosion of the cervix or a carcinomatous involvement of those parts.

(b) Due to trauma—self-induced by masturbation or by the passage of catheters or other instrumentation.

(c) Due to descending infection of the upper renal tract which is rare as the urethra is especially resistant to such infections.

(b) Infectious diseases: Influenza, pneumonia, typhoid, septicemia, etc.—these no doubt are transmitted through the hematogenous route, although this theory is still in dispute with the pendulum swinging toward its acceptance.

(c) Metastatic infections from remote foci:

1. Lymphatics.

Furniss has shown that urological infections are most common after intestinal operations, and no doubt due to the close lymphatic association.

2. Hematogenous:

Rosenow and his co-workers have reported the reduplication of various urological lesions in animals by the intravenous injections of organisms obtained from dental abscesses, tonsils, sinuses—not only producing analagous lesions in the animals but by injecting the secretion of the prostate of afflicted patients produced the arthritic and other lesions in the animals analagous to those of the patient from whom the prostatic secretion was obtained.

Young believes that the cocci infections of the prostate are more liable to be associated with foci of the head (teeth, tonsils, sinuses, etc.) while the bacillary type is more likely to be traced to the alimentary tract.

(d) Contact:

1. The infection may travel through the bladder wall, but it is usually at the site of a severe inflammatory condition.

2. Through the bowel wall.

The question of the transmission through the

bowel wall would seem to be easily answered, but Von Laucken and Stuhler at the Mayo Clinic in a series of many thousand male patients who in the course of the clinical examination gave evidence of chronic constipation, and upon being referred to the Urological Section for a prostatic checkup, showed only the usual percentage of involvement of the prostate and with it also other possible sources of infection which appeared to be more likely to be the fountain of the prostatic condition.

Hertz Boyer found Colon bacilli in urine which he believed to be due to lymphatic transmission in cases of decreased intestinal motility, rather than through direct contiguous passage—this belief being based on the anatomical relationship between the affected parts.

(e) Sexual abuses:

Any sexual act, whether normal or perverted, which permits a prolonged engorgement of the prostate, e. g., delayed ejaculation, withdrawal, excessive repetition, masturbation, unsatisfied erections, etc., all work to lower the resistance of the gland.

(f) Age:

Males nearing the age of forty or so undergo certain metabolic changes which may be recognized as those for which we can coin the phrase "preprostatic age"—we all of course admit of no definite sexual cycle for the male, but at the age mentioned certain body changes do go to make up a condition that predisposes towards prostatic pathology.

Bacteriology:

Staphlyococcus and Colon Bacillus showed a marked frequency in the organisms obtained from secretion of chronic prostates while the Gonococcus was present in only one per cent. of the cases, but due allowance must be made for the fact that the Gonococcus is well nigh impossible to demonstrate microscopically in chronic cases, as the organism dies in a comparatively short time, some authorities state three years, but it disappears leaving an associated organism usually staphylococcus to continue as the etiological factor in the chronic prostate.

The so-called "sterile" inflammations of the prostate are not to be accepted as a more thorough search will reveal the offending organism in these cases.

Hill in his work at Brady Institute in an examination of 100 cases of prostatitis gave the following results:

30% of cases showed urine and prostatitic smears negative with cultures of same also negative.

30% of cases showed urine and prostatic smears negative with cultures from one or both showed positive for organism.

40% of cases showed positive organism either in urine or prostatic smears or both with positive cultures in every case.

Symptoms may be absent entirely due to drainage into prostatic urethra, but when drainage ceases the picture of focal infection ensues.

(a) Cases with symptoms definitely referable to prostate constituted 78% of cases and under this head were:

Urethral discharge
Perineal discomfort
Premature ejaculation
Supra-public discomfort
Morning drop
Testicular neuralgia, etc.
Difficult urination
Painful urination
Hematuria

(b) Cases with remote general complaints frequently associated with prostatitis which constituted 22% of the cases:

Myalgia and arthritis, especially in sacral regions and lower limbs.

Remote abdominal symptoms.

Often inguinal tenderness and mistaken for signs of an inguinal hernia.

Gastric and duodenal ulcers, especially in prostatitis, 1 & 2 are reported in Mayo clinic frequently.

Sexual disturbances:

Due to close association of sexual organs with central and sympathetic systems.

Mental disturbances producing pronounced psychic signs and often melancholia.

Nervous symptoms.

These nervous signs are very important and demand early recognition.

Malaise and ill-defined headaches.

Eye conditions, chiefly iritis.

Anemias, loss of weight, appetite and other evidences of focal infection.

Diagnosis: In making a laboratory diagnosis of chronic prostatitis the classification of Von Lauchen is no doubt the most logical and popular today.

After expressing the prostatic secretion by a vigorous massage it is placed on a glass slide, covered with a cover slip and examined unstained with the dry, high power lens.

A field showing from five to eight pus cells is considered normal with the other classifications as follows:

Prostatitis I Eight to fifteen pus cells.
Prostatitis II Fifteen to fifty pus cells.
Prostatitis III Fifty to one hundred and fifty pus cells.
Prostatitis IV One hundred and fifty, and over.

Other pathological findings are noted, but the above with the findings of clumps of cells, which are absolutely diagnostic, are sufficient for a working basis—1% acetic acid will bring out nuclei.

Findings in men well over fifty years of age must of course be accepted cautiously as degenerated epithelial cells and an increase in the number of leucocytes is very common at that age.

The earlier method of Lowsley with the irrigation of the urethra with permanganate, the passage of the urethroscope preceded by a prostatic massage and the gathering of the secretion on the end of the endoscope is now replaced by merely swabbing the penis and gathering the secretion direct on the glass slide.

Culture of the expressed prostatic secretion is a very useful and thorough method in diagnosis in a great many mild and obscure cases—supplemented with animal inoculation.

Rectal findings in prostatitis:

The rectal examination will in a way modify the above as a rectal examination revealing a larger than normal prostate with a bogginess or evidence of softening in spots will indicate a withholding of the findings until a second microscopical examination on the day following is made.

Irregular induration and shrinkage as shown by loss of normal smoothness and regularity.

Changes in surrounding tissues with bands of scar tissue located usually on the upper and outer angles of the gland and the sulci between the gland and the inferior pubic rami.

In the hematogenous type of infection the gland is often normal in size and regularity, but is tender to the touch and the secretion is expressed with difficulty.

The so-called fibrous prostate will usually present urinary difficulties with the gland showing practically no rectal finding (25% of all cases) often gives no urinary signs and much more depends upon the microscopical findings.

Von Laucken quite frequently employs provocative tests in his examination where an obscure, deep-seated prostatic infection is suspected and does not readily manifest itself in the microscopical examination—the massage is supplemented with the passing of sounds into the prostatic urethra followed with instillation of 1% silver nitrate and occasionally the Kohlman dilator is employed as a provocative measure.

The urethroscope will demonstrate polypoid growths posterior to verumontanum.

Treatment: In the treatment of this condition, needless to say, the removal of a co-existing focus, if one is present, is paramount and then the treatment is directed toward the prostate.

In the prostatitc type one cases, the treatment is sufficient with daily sitz baths or the use of the rectal irrigators, one of which is the Arzbuerger which comes in two types—one provides for a closed stream of hot water with the prostatic sound close to the posterior surface of the prostate, and another not so efficient, but a trifle easier to employ with an electrically heated unit —these applications are of one-half hour duration, and are given night and morning if severe symptoms warrant, or every other day in mild cases.

In cases of greater severity the rectal thermophor mentioned above is used, and with it the following:

Harrison of St. Thomas Hospital, London, is reporting wonderful results in these cases with diathermy and believes it is without a peer in the management of this condition—treatments are given on alternate days for twenty minutes, and are controlled by temperature readings with the desired temperature of the prostate at approximately 108 F.

Massage on alternate days followed with bladder irrigation.

Urethral dilation (Prostatic) with Kohlman dilator on the fifth day and followed with instillation of silver nitrate of 1%.

Vaccine treatment, preferably autogenous.

Protein shock injections.

Cauterization of growths through the urethroscope.

Young thinks that in cases of obscure focal infection (including prostate cases) that the various new dye germicides such as acriflavine, mercurochrome, etc., should be tried either locally or intravenous in an effort to learn just what they accomplish.

In cases which present desperate pictures as seen occasionally in endocarditis, arthritis or a chronic rheumatic picture of a disabling character, that one is justified in cutting down on the prostate, making

an incision into the prostate, and if upon examination of the smear obtained thus, bacteria are demonstrated that further procedure is justified in excising a portion of the prostate in each lateral lobe and packing the cavity to maintain drainage.

Lazarus, of New York, using an x-ray therapy, has achieved some brilliant results—the prostatic secretion has a lessened or normal pus cell count, although the rectal findings are not changed, but nevertheless he believes that the x-ray mechanism is not that of a sterilization of the prostatic focus.

When have we a cure? for one must not judge a case as a "cure" with the subsidence of the focal infection symptoms, nor the diminished size of the prostate, but it must fulfill the following:

(a) Normal prostate per rectum.

(b) Normal prostatic urethra and verumontanum.

(c) Prostatic fluid free of pus cells and sterile on culture.

(d) Evidence of clean bill of health for seminal vesicles.

(e) Absence of focal infection symptoms.

The prognosis as a rule is good in cases where the prostate is the lone offender and the treatment faithfully and thoroughly carried out—the method of treatment is necessarily a long one, but in the end good results are the rule.

Conclusions:

Prostatitis is more common than usually supposed.

The prostate is not receiving the attention due it in male examinations, especially focal infection suspects.

The diagnosis is easy in its technique and demands an office procedure only as a rule.

The treatment must be painstaking, thorough and prolonged.

Manufacturers Bank Building.

DISCUSSION

Dr. Frank Deneen, Bloomington: This is probably the most neglected field in the department of internal medicine, that is, the examination of the prostate and seminal vesicles. It is probably neglected for two reasons. One reason is that it is rather distasteful work; and the second is that it requires a rather long slender finger to really examine the prostate and seminal vesicles. To me it is not just a question of prostate but practically all cases are prostate and seminal vesicles combined.

There are a large number of cases that come into your office with weakness, exhaustion, a tired feeling, and you can't find out just what is wrong with them. I believe every one of these cases should be gone through with a rectal examination the same as you examine the heart and lungs. There is no doubt in my mind that many of the so-called incipient tuberculosis cases are nothing more than low grade prostatic infection. The one I see most frequently is the post-influenza type. It is purely hematogenous. Most of them have secondary anemias.

I recently had a man who for about three years was sick, weak, tired, worn out; and he would go from one place to another in search of relief. I remember examining his prostate and seminal vesicles at one time and with no apparent findings. He went to Boston and a couple of men there classed him as a case of nerve exhaustion. Another man wanted to do a sphenoid operation. One day he developed the characteristic backache. We massaged his prostate and seminal vesicles and he has cleared up.

I cannot help but believe that all this time he had a low grade infection with absorption going on, without digital findings. We could not find it. There is no doubt that this condition occurs around the age of 55, the age when the male ceases having the usual run of intercourse and there is more or less stagnation of secretions there. He gradually gets absorption of these secretions and they will form a focus or good soil for the organisms to grow in.

Personally I do not believe in the specificity of infection. I do not believe there is any organism that is specific for one type of tissue or another type of tissue. We know from bacteriology that with certain media on certain soil certain organisms will grow better than in any other location.

Where you have a stagnation of secretion it is perfectly natural that any organism will grow better in that medium than it will where there is a constant drainage because in that stagnation there are undoubtedly chemical changes taking place, and all that gives rise to infection and absorption.

In my experience the prostate and seminal vesicles belong in the field of internal medicine because they belong in the field of diagnosis. I believe that every time you have a case presenting any form of low grade infection or absorption, whether infectious or chemical, you should perform an expression of the prostate and the seminal vesicles; and you will be surprised how many backaches you will relieve, how many obscure pains that the patient complained of in the appendiceal region, also upon the left side. In my experience they have been more on the right side. Many of them have had the appendix taken out as a chronic appendix.

You get relief for that patient with the first massage and it will return; but, after a few days of massaging, your patient will be stronger and better and relieved of the obscure pains.

I believe, as a focus of infection, that the prostate is the most important and most easily relieved.

Dr. James Beynon, Rockford (closing): I would like to take this opportunity of stressing the therapeutics of the chronic prostate for it presents an opportunity for your favorite therapy no matter what that may be for as I stated before even the surgeon comes in for his share of credit in relieving the chronic prostate.

Of all the various methods of treating the chronic prostate massage stands preeminent and by it alone you can relieve approximately 75 per cent of the cases but do not use the strenuous methods so many employ inflicting unnecessary discomfort and pain on the patient but be gentle for gentle massage will stimulate the contracting power of the gland to as good a result as will the severe mechanical expression of the secretion.

Rolling the finger while passing in the direction of an arc with the anus as the pivoting point will also be less tiresome to the operator and will really accomplish much more of the desired effect and while I am speaking of the emptying of the prostate the question of sexual intercourse comes up—I believe that a normal sexual act bi-weekly in these cases is of some therapeutic value.

As Dr. Deneen said you can see an improvement almost at the institution of proper treatment but you must insist upon a prolonged and thorough course to obtain results and with a correct diagnosis, a thorough and intelligent procedure you will convert a skeptical, discouraged and sick man into a very gratified and well patient in practically all cases.

THE CARE OF THE CANCER PATIENT*

E. G. C. Williams. M. D.,

DANVILLE, ILL.

In medical schools students are taught to treat diseases. This generally continues through internships where patients have lost their identity as individuals and are known as case numbers. It is usually only after some years of actual practice that the physician learns to treat patients as individuals and modify his treatment or conduct to fit the special mental and physical qualities of each patient. In spite of the many romances that have been built around the idea of doubles or persons who are exactly alike, we know that no two people are exactly alike and that these stories are truly romances. Individuality submerges type.

In the care of the cancer patient there are three phases of treatment that must be considered with each patient. In many cases all these do not demand close application and in some only one need be considered.

The first phase is the treatment of the cancerous lesion. This is not the time and place to talk in detail about the treatment of cancer. But since the patient and not the disease is under consideration, we will generalize on the points that contribute the most toward our ultimate end —a cured and rehabitated patient. The most conservative thing we can do is usually also the most radical. This condition grants no priviledge to temporize or to try this or that pet idea and wait to see if it will work. The lesion must be destroyed and whatever method we use must be completed in the shortest possible time. If we use radium, let it be enough at one or two treatments to stop and destroy the disease. If we use surgery, let us make a complete resection of the mass at one time and not be so jealous of our surgical importance that we will not call the radiologist in consultation before surgery is done. To call him after surgery is done is unfair and handicaps him in his earnest desire to cooperate with the surgeon. It is a notable fact that the surgeon is called in consultation by the radiologist much oftener than the radiologist is called by the surgeon. Let us be radically conservative and foster a close co-operation between all who are interested in the welfare of the cancer patient.

The second phase covers the general physical care of the patient. The importance of this depends very much upon the location and seriousness of the lesion. With the small superficial lesion there is very little constitutional effect from the treatment with very little demand for constitutional treatment, but as the amount of tissue to be destroyed increases and in the case of deep seated cancer the care of the general health is as important as the eradication of the malignancy. When the treatment is surgical, the patients usually have this attention in the preparatory and post operative treatment, at least while they are in the hospital but are often sent home without a definite program for rehabilitation. X-ray, radium and electro-coagulation are used to destroy tissue which is usually left in position until it is absorbed or sloughed and very often we overlook the fact that this has become foreign material and that the absorption produces more or less toxemia in carrying the waste to the excretory organs. The cancer has most probably been cured but the patient may be poisoned by the waste products and die during the cure. The condition produced may be classed as an acidosis and treatment should be outlined accordingly.

Diet must be so ordered that the patient will

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receive a good quantity of constructive food with complete removal of the acid-producing items. This is practically a nephritis diet. Immediately following a massive x-ray or radium dosage all food is withdrawn for at least twelve hours and the patient is advised to remain in bed. We have found that the greater part of Roentgen sickness is due to bad air in the therapy room and scattered or secondary radiation—with the correction of these faults, reactions have become less severe.

I do not wish to give a detailed program for the care of these patients but to emphasize the necessity of caring for the patient while we are treating a cancer.

The third phase concerns the psychic state or attitude of the patient. The production and maintenance of a proper state of mind is about as important as the physical treatment.

The psychic treatment of cancer patients should be started long before the patient ever develops cancer. Educational work should be carried out as thoroughly as the tuberculosis education has been done. The tuberculosis patient knows that "Tuberculosis is a preventable and curable disease." He knew this before he developed the disease. His mental state was prepared and he was ready to make the fight as soon as the diagnosis was made. He had been taught that to the consistent fighter, victory over tuberculosis is usually sure.

In the production of a similar attitude toward cancer, we must concentrate on a few special points and give them to the lay world at every opportunity—such statements as:

"Every cancer is curable when treated soon enough."

"Cancer is curable if not neglected too long."

"Early diagnosis and immediate treatment will cure cancer."

"Cancer is curable—don't wait."

If a person who develops a suspicious lesion has been properly informed concerning the curability of cancer, he will go to his physician and calmly and intelligently co-operate with him to effect a cure. But the person who lacks knowledge makes a hard patient. He is usually saturated with superstitions and false ideas. He feels that he should have gone to an Indian cancer specialist who uses a mystic paste and charm. This patient is restless, antagonistic and usually certain that all cancer patients die horrible deaths. These people are susceptible to any sort of ridiculous hokum that comes from outside the profession and sometimes from within.

Everything else being equal, the well instructed patient has a better prognosis than the ignorant superstitious one.

Over nine years ago, we gave an unfavorable prognosis to a woman with a recurrent mammary cancer. She replied "If you mean that I am going to die, you will have to make other arrangements—I have no time to die. Whatever you want to do, do it. Whatever you want me to do, order it. But I will not die." She is alive and well. She was well informed, not afraid and willing to co-operate.

A few months ago a man presented with a small lesion on his neck. It was proven to be epithelioma. When he was told it was cancer, he fainted and his daughter went into hysterics. The mass was coagulated and promptly healed but the man was sure it would break out some place else and kill him. He grieved over himself—lost weight, the lesion healed—he knew it would come back—and he died—his early information concerning cancer was that it always killed. He had no hope, no faith and no determination to get well.

With a background of intelligence and proper information it is easy to produce a psychic state that assists in the treatment and care of the cancer patient. Mental depression carries with it physical depression, lowered resistance and decline. Mental exaltation, determination and confidence speed up body processes and bridge gulfs that swallow the weak of faith.

Different patients demand different means to produce this desirable state of cheerfulness and determination. In many cases the co-operation of the friends and family is necessary. First of all, the patient and one member of the immediate family must know the true nature of the condition, the extent of the lesion and the possible prognosis. I use the word cancer in preference to carcinoma, malignancy, epithelioma or anything else that might be a sugar coating to a bitter dose. Cancer is an ugly word and conveys more to the patient than any of the others, and soon you will see from the reaction of the patient how much co-operation you can get and how much he can be depended upon to do his part. It is a mistake to hide the diagnosis from the patient

and the physician who does this gets censured for it sooner or later.

Give the patient the prognosis—as liberal as you dare and accompany it with a demand on their co-operation—that a great part of the cure is in their determination to get well and to live.

Give the patient something definite to do every day and increase the amount to be done according to the patient—almost anything to keep them feeling that every day's program is a vital part of their cure and do not leave them to wonder and worry why something is not being done. Ultra-violet radiation, sun baths, hot foot baths, electrical treatments—special foods for various days. In fact, anything that will build and contribute to the mental state of the patient.

We hope that nothing in this talk can be interpreted as a proposal for the psychic treatment of cancer. Some of our Christian Science contemporaries would quickly seize such an interpretation and distort it to fit their own way of thinking. Details have been avoided as each case must have special consideration. We have been brief in order that the discussion may have plenty of time.

DISCUSSION

Dr. R. T. Pettit, Ottawa, Illinois: The definition of the carcinoma is that it is a non-inflammatory new growth. I think our tendency is to think of carcinoma as being essentially a local growth. But we are warranted in assuming that it is something more than this. Cancer is in itself a disease. We don't know the etiology of it. It may be infection; it may be of hereditary origin; some disturbance of the cell metabolism, oxidation or other derangement. Some time we are going to know, but we have enough evidence at hand today to warrant us in believing carcinoma is a disease.

I had an opportunity five years ago to visit Dr. Blumenthal in charge of the Cancer Research Institute in Berlin. He is strongly of the belief that carcinoma should be considered a disease as syphilis or as tuberculosis. We know that carcinoma can be limited in its growth by the stimulation of the production of fibrous tissue, the same as tuberculosis is limited and in the same way syphilis is limited, as well as destroying it by the methods Dr. Orndoff has mentioned.

In the meantime, we must take care of our patient the same as we do our case of syphilis or our case of tuberculosis, our surgical case, whatever it may be. I would like to call your attention to an arsenic preparation used by Dr. Blumenthal, atoxyl. It is used by him constantly in all cases. It has practically the same effect as cacodylate of soda given intravenously, except that it is not nearly as rapidly eliminated. It can be given in a series of about ten doses. In Berlin, they feel it has a decided advantage in the management of the carcinoma case. Fresh air, good food, blood transfusion, and arsenic medication have their bearing on building up the defense, the production of scar tissue, fibrosis, the thing we are after.

I would like to have somebody say something more about what ought to be our attitude in regard to telling the patient he has a cancer. I feel it ought to be done. We used to feel that a case of tuberculosis should be shielded and would tell him he had a "little lung trouble." Now we feel it is criminal not to tell a patient he has tuberculosis. In hopeless cases of carcinoma, should we tell them they have cancer? Or should we pussyfoot? I don't. We may go through the same evolution of thought we did regarding tuberculosis but we would probably get farther and do better work by putting the cards on the table and get the patient's cooperation and do things a whole lot better by telling the patient what is the matter and what is necessary for him to do. We cannot do it unless he knows what the trouble is.

Dr. T. D. Cantrall, Bloomington, Ill.: This paper is an important paper. It is a question about which I have been so emphatic sometimes that I have been criticized. Treating the disease and not the patient. I made this statement in connection with the last meeting which I attended in Milwaukee, "Too many of us are getting to be great radiologists and great surgeons and forgetting we are doctors; too many are inclined to one line of thought." I want to commend the paper very highly along that line.

I will speak only on one subject, and that is the subject the doctor mentioned last in the paper. Should the patient know what is the trouble? I say frankly he should know it unless it is an old decrepit patient where you have to depend upon cooperation through the family. I think sometimes in deference to their age and the childlike mind they have it would be wise to keep it from them, just the same as you wouldn't tell a child. I think some old people become children. But people of moderate life, I believe, should know absolutely what is the matter with them. I have a case now in charge that has been treated by one of the best radiologists in Chicago, carcinoma of the jaw. He has had some radium put in there. I believe if my friend, Dr. Beck, had had that fellow he would have had a chance to live. But I feel he has now gone too far. He failed to cooperate in his treatments. He was not prompt in coming to his radiologist. In fact so much so that the man who referred him to me called up and asked him if he was still continuing his treatments. He was brought to me under those conditions. The doctor said the family didn't want him to know what was the matter with him, and he called me out of the room to tell me they didn't want him to know

what was the matter with him. Yet he was not cooperating. He thought he had a boil on his jaw. There was a tumor about the size of a hen's egg that was ready to break down. I turned around. I didn't say a word to the doctor, but when he went out the door I said to the patient, "My friend, do you know we have really got a hard fight on our hands?"

He said, "I didn't know it."

I said, "You have an awfully bad cancer there, and you and I have to cooperate if we are ever to do anything for it."

He said, "Do you think that is cancer?"

I said, "I don't think anything about it. I know that is what is the matter with you."

He said, "I am glad to know it." And I have never had a better patient, never expect to have a better patient than he has been ever since. We are going to do as much as we can for him along that line now.

If I suggested he go to Dr. Beck, I know he would. He knows he has his back to the wall and has to fight and is willing to fight.

We must treat our patients as intelligent people and tell them what is the matter with them.

Dr. O. W. Allison, Danville, Ill.: I want to emphasize the diet. All our patients at this time, or practically every one of them, are in decline, so I want to emphasize the importance of a high vitamin diet. Almost all of the patients up to this time have been very careless in the diet, eating meat, potatoes, and gravy which are low in vitamin. By using fruits and vegetables, both cooked and raw, with limitation of proteins, I believe we will get better results.

Dr. E. G. C. Williams, Danville, Ill.: The assembly has been very kind, or has overlooked the trap that I laid for myself in this paper. In speaking of the two patients I said had cancer I referred to the woman with the breast cancer and how she cooperated and the man with cancer on the neck who immediately proceeded to waste away. There was the trap which I laid, and I rather expected that you would pick this up, because I told that in both cases they had cancer; one, a very serious case, responded with cooperation. The man's case was not so serious, didn't amount to anything much at first, but he was so certain it would be serious for him, with his background of superstition that he couldn't stand the pressure. So we must be careful in the telling of patients. Treat your individual as well as the disease.

Of course, I don't tell all my patients they have cancer. The next of responsibility in the family knows it. Some of the old ladies with cancer of the cervix, no I don't tell them. It would be unkind. If we can go ahead with the treatment under the guise that it is a little growth of something we are trying to remove, so much the better. Some of our older people become childish and don't bear up under this thing. So even in the serious case, in telling the patient he has cancer, we must treat the individual and not the disease.

THE PITFALLS IN EYE, EAR, NOSE AND THROAT DIAGNOSIS: GLAUCOMA*

HARRY GRADLE, M. D.

CHICAGO

The present day diagnosis of glaucoma presents some pitfalls that are not apparent except upon close study. First regarding the question of glaucoma simplex, the non-inflammatory type, which dominates the field by nearly twenty to one. The cases that come in late with diminished vision, contracted fields, dilated pupils, excavated discs, nobody would have trouble in diagnosing, but early conditions must be observed, and the men who do refraction will see these cases first. It would seem to me that glaucoma simplex is on the increase. From a relative standpoint, I am firmly convinced that there is an increase over what there was sixteen years ago. We see our cases earlier because the average person is paying more attention to his pains and aches, and comes to a physician sooner than in former years.

What must we look for and what must we avoid in making a diagnosis of glaucoma simplex? One of the very common conditions where a diagnosis is made and where it is unjustified are the uncomplicated cases of low grade chronic cyclitis, in which the only clinical manifestation is very fine precipitation on the posterior surface of the cornea. The balance of the intraocular pressure is disturbed and the pressure is raised, not to the point of an acute inflammatory condition, but rather just above the normal. Only too often it is that we find these cases with a diagnosis of simplex when they are cyclitis and not glaucoma. We find these in the younger persons, 25 to 30 years of age, where the cyclitis is apt to be of the tubercular type. In older people 45 to 50 years, with specific form of cyclitis, careful observation will reveal the diagnostic points. If you will examine these cases with the slitlamp you will see minute deposits of fibrin on the posterior surface. They should present no great difficulty in the diagnosis. One of the pitfalls to be avoided is the condition of the optic nerve head, when in the early stages. I believe the classification of excavation of the disc still holds true, and we cannot call the excavation pathological unless

*Read as part of Symposium before Section on Eye, Ear, Nose and Throat, Illinois State Medical Society, Moline, May 31, 1927.

there is at least one vessel bending sharply at the disc. The excavation may be largely extended, nearly to the edge of the disc, but a physiological excavation and glaucomatous excavation can be differentiated by the bend of the vessels on the edge of the disc. If we stop to consider that anatomically, we will see how it can be. The optic nerve fibres must come over to form the excavation, bending down because a large number of fibres are forced into this narrow opening. Instead of forming a central excavation they may come over and bend at the edge of the disc, but there is a definite area between the edge of the excavation and the edge of the disc. The vessels as we know lie in the superficial layers of the retinal fibres. When pressure is exerted from within the eye this forces the fibres out and they bend at the edge of the disc; on account of the pressure, we will find that the vessels bend sharply and disappear. Whereas in the glaucomatous type the bend occurs from the edge of the disc. So we must observe the optic nerve head carefully to find out whether the bend of the vessels occurs within the confines of the disc or at the edge of the disc. When the vessels bend and disappear at the edge of the disc we are justified in saying we have a pathological condition that is in all probability glaucoma. One vessel is enough to cause suspicion in our minds. What would be our further investigation? Naturally, the intraocular tension measured tonometrically. You cannot make a diagnosis upon one measurement of the intraocular tension. If the tension is pathologically high—40 or 50—you do not need a tonometer. If it is pathologically low —13 or 10—you do not need a tonometer, you can tell it with your fingers. If it measures between 15 and 35, you have a record of the tension and that is all you have—you have nothing of diagnostic import. It does not mean glaucoma. What may be a perfectly normal tension for one eye is pathological in another eye. I have a patient who has been under the observation of my father and myself since 1907. Since 1912 the ocular tension in that patient's eyes has varied from 33 to 36 degrees of mercury. The visual field is full, vision is normal, and has remained so for fifteen years. That is not pathological. We have records on some patients of 20, 21, 22 mm. of Hg. tension, with beginning glaucoma simplex. For those individuals 21 is pathological. Consequently it does not make any difference what the measurement is. It merely gives you a record for the future. You cannot make a diagnosis of glaucoma with the tonometer. All that it is good for is to make a record against which you can check in future. The same thing is true of blood pressure. There may not even be changes of any value to you in suspected cases, because, for example, you have a case of suspected incipient glaucoma and you find an intracular pressure of 28 or 29 degrees of mercury—is that pathological or normal? You do not know, because you do not know how that patient reacts. Of course it is of value for the future, but for immediate diagnosis—no. So you have to determine the visual fields. In the early stages they are of little value. The early degrees of simple glaucoma show little interference with peripheral fields or color. You may or may not find absolute or relative central scotomata. I think Smith said there are about eight types of scotoma described in glaucoma simplex that are not constant. So in a doubtful case you have not any objective findings upon which to base your diagnosis. Of late years Derby has written about dark adaptation and produced some very nice curves. There are so many conditions of disturbance of dark adaptation that we do not have an absolute diagnostic point. As a rule, however, in glaucoma simplex we may make a diagnosis upon first, the vision; second, the appearance of the optic nerve head; third, the peripheral form fields; fourth, central visual fields; fifth, possibility of increased tension; sixth, the curve of dark adaptation. You will note I omit the condition of the pupil. It is only after the glaucoma simplex is well established that we have a pupil that is of diagnostic value to us. In many cases you can only have limited opportunities to observe these cases, whereas it is necessary to follow these points over a period, not of days, but weeks, preferably without any mydriatic treatment. In Vienna a case would come in and be given homatropin for the purpose of provoking an attack of acute glaucoma if possible, on the theory that they were going to have it any way and why not get it over and be operated on. Provoke the glaucoma, operate on the case and let them go home. It would be impossible for us to handle any private cases that way. If you have difficulty in observing the fundi in cases that are

suspect glaucoma simplex, you need have no hesitancy about dilating that pupil with adrenalin. The early cases may be dilated without fear. The late cases of course must be watched carefully, and you should not use homatropin. We may use adrenalin or some of the substitutes for adrenalin. If you instill four drops with the patient lying flat with the eyelids held apart so that the adrenalin stays in for about 30-45 seconds, you will have ample dilatation. At first we injected it subcutaneously, then we instilled it on a cotton pledget, and we found that if we allowed it to stay in for that length of time there was ample dilatation for all diagnostic purposes. Of course, if the question of glaucoma is present it is wise to contract the pupil afterward with a mydriatic, but you may go ahead and dilate with adrenalin in a case where you have a suspicion of beginning glaucoma simplex. The slitlamp is of value to you. The distribution of pigment granules described by Koeppe as diagnostic of glaucoma does not occur in the early stages as a rule. Occasionally in the very beginning stages of non-inflammatory glaucoma we may find a distribution of pigment granules all over the surface of the iris in characteristic manner, but this is more apt to be the case in inflammatory than simplex, and it occurs so irregularly in simplex that we may not use this in diagnosis. To confirm a diagnosis in which there is a suspicion of simplex or non-inflammatory glaucoma, we must depend upon the optic nerve, upon visual fields for form and color, upon the presence of relative or absolute scotomata, upon intraocular tension, reduction of vision, dark adaptation. Sometimes in the very incipient stages is it possible to make a diagnosis and the patient will have to be watched over weeks or months. During this period it is inadvisable to use mydriatrics because the picture will then be marred and an absolute diagnosis cannot be made.

DISCUSSION

Dr. L. A. Schultz, Rockford: What about the use of adrenalin in the case of arteriosclerosis?

Dr. Harry Gradle, Chicago: Adrenalin in arteriosclerosis, is naturally contraindicated for it may be absorbed from the conjunctiva as readily as from any other part of the body. Two or three minims in the sac will be enough to produce a dilated pupil but not to produce a systemic reaction.

THE MEDICAL MUSE

Remarks of a husband about his wife's operation

A—for Appendix all ready to break
B—is for Belly all ready to ache
C—is for Calories, they make you hop
D—is for Drainage—wetter than sop
E—is for Ether and Enema, too
F—is for Flowers they bring in to you
G—is for Gas Pains hurting like hell
H—is for Hypos to help you get well
I—for Incision with cat gut sewed up
J—is for Joke which is nothing else but
K—is for Knapp and also for Kelly
L—means you're Lucky to get back your belly
M—is for Mince pie just over the hall
N—is for Nurses the best of them all
O—Operation said Irvin S. Cobb
P—is for Pain that goes with the job
Q—is for Queer how your head gets to feel
R—is for Rhubarb to settle your meal
S—is for S etcher to carry you up
T—is for Temperature after you sup
U—is for Urine that splashes and spurts
V—is for Vomit—oh gosh how it hurts
W—is for Winter with snow on the ground
X—marks the spot the appendix was found
Y—is for YOu getting well by the rule
Z—is for ZuZU who wrote all the drool.

A NUDE IS THE SAME AS A COW

The dame who took the part of Lady Godiva in the Chicago Arts ball says: "To me a nude is the same as a cow to other people." We must be "other people." To us a nude is just the same as a cow, too.

WATCH YOUR STEP

He—"You must economize? Think of the future. If I were to die, where would you be?"

She—"I should be here all right. The question is—where would you be?"—*Weekly Telegraph (Sheffield).*

FATALITIES FROM LOCAL ANESTHETICS

EMIL MAYER, M. D.,

Chairman, Committee for the Study of Toxic Effects of Local Anesthetics of the American Medical Association

NEW YORK

Since the publications of the Committee for the Study of Toxic Effects of Local Anesthetics in 1924 I have been in receipt of many communications. All expressed their appreciation to the Board of Trustees and the Therapeutic Research Committee of the Council on Pharmacy and Chemistry for instituting and supporting the investigation.

Without making any special effort to secure reports of further fatalities, I have learned of fourteen additional deaths, none recorded in medical journals. With one exception these occurred in a limited but very

populous area of about 6,000,000 inhabitants during 1925, 1926 and 1927. The local anesthetics used were: cocaine, three; cocaine-procaine, two; procaine, eight; butyn, one. The cocaine-procaine fatalities were recorded as procaine, but the history obtained showed that cocaine had been used first. In at least two of the procaine fatalities the patients seem to have been practically moribund before operation was attempted. Of remarkable interest is that not a single one of these fatalities was ascribed to substitution, which was so frequent in our former report. It will be noted that one of the deaths from cocaine followed the use of cocaine paste, which our committee stated was dangerous. Case 8 was most carefully observed. No cocaine was used; the fluid injected was analyzed and the sad ending can be ascribed only to anaphylaxis. We still find the diagnosis of status lymphaticus made without any justification for it. In one case there was no necropsy and yet status lymphaticus was given as a cause. The trend of all communications is that cocaine is being used much less frequently than formerly, being limited to aiding examinations or for endolaryngeal work. The number of cocaine fatalities, five, is a very large number when the relative infrequency of its use is taken into consideration. Even those who still use it in intranasal operations confess that they would not have the temerity to use it in the pharynx. After eight years of study of this subject I still feel that procaine hydrochloride is undoubtedly the safest of all the local anesthetics now in general use. J. A. M. A. 4-21-28.

Society Proceedings

ADAMS COUNTY

May 7, 1928. On this day Dr. Joseph C. Bloodgood of Baltimore, Associate Professor of Clinical Surgery of Johns Hopkins University, Medical School, was our guest. A breakfast was tendered him by Quincy physicians with 11 in attendance.

Following the breakfast Dr. Bloodgood was taken to the Quincy High School where he gave two addresses before different groups of students, totaling about 700 in all. These talks were along general health lines.

At noon Dr. Bloodgood was the guest of the Quincy Kiwanis, Rotary, Lions and Exchange Clubs, and there were about 250 business men present. Dr. Bloodgood was introduced by the secretary and gave a talk on cancer which was broadcast by Radio Station WTAD.

At 3:00 P. M., Dr. Bloodgood gave a clinic at St. Mary's Hospital, which was attended by about 60 physicians and dentists. About eight patients were presented. At 6:00 P. M. a dinner was tendered Dr. Bloodgood at the Elks' Club at which 51 physicians were present. Following the dinner Doctor Bloodgood gave a talk on "What Every Doctor Should Know About the Diagnosis of the Early Stages of Cancer," which was illustrated by lantern slides. At 8:00 P. M. most of the physicians adjourned to the Empire Theater for a large public meeting. The theater was crowded to capacity, several hundred people being unable to secure admission, the estimate attendance being placed at about 1,900. The High School Band rendered a half hour of splendid music following which Dr. Bloodgood was introduced by the president of the society, Dr. W. H. Baker. Dr. Bloodgood gave an excellent talk on "Cause, Prevention and Cure of Cancer," talking continuously for 70 minutes. He held his audience in a remarkable manner.

We believe Monday May 7, 1928, will stand for a long time as a banner day in the activities of the Adams County Medical Society. So far as we are aware, never before in the history of Quincy were so many lay people assembled together to hear a man talk on a medical topic. The success of the public meeting was mainly due to the splendid work of the chairman of the Cancer Committee, Dr. C. A. Wells. The meeting, however, could not have been put across if it had not received the splendid financial support which Dr. Wells was able to secure from a large number of Quincy physicians.

HAROLD SWANBERG, M. D.,
Secretary.

COOK COUNTY

CHICAGO MEDICAL SOCIETY

Railroad Night, May 2, 1928

1. Periodical Health Examinations—George B. Vilas, General Manager, Chicago North Western Railway Co.; Col. C. L. Whiting, Supt. of Terminals, Chicago, Milwaukee, St. Paul and Pacific Railway Co.; H. L. Ray, Manager, Personnel Department, Chicago, Rock Island and Pacific Railway Co.

2. A Summary of the Re-examinations of 10,000 Railroad Employees, With the Findings and Conclusions—C. W. Hopkins, Chief Surgeon, Chicago North Western Railway Co.

Discussion—William H. Bohart, Chief Surgeon, Chicago & Eastern Illinois Railway Co.; Arthur R. Metz, Chief Surgeon, Chicago, Milwaukee, St. Paul and Pacific Railway Co.; T. J. Kaster, Chief Surgeon, Grand Trunk Line; Frank E. Pierce, Chief Surgeon, New York Central Lines West; Hart E. Fisher, Chief Surgeon, Chicago, Aurora & Elgin Railroad Co.; D. B. Moss, Chief Medical and Surgical Officer of the Chicago, Burlington & Quincy Railway Co.; Theodore L. Hansen, Assistant Chief Surgeon, Chicago, Rock Island and Pacific Railway Co.

Joint Meeting Aux Plaines Branch and the Central Society, May 16, 1928

PROGRAM

Relation of Sinus Infection to Diseases of the Chest—W. V. Mullen, Crile Clinic, Cleveland, Ohio.

Discussion—Arthur M. Corwin, Robert H. Good.

Regular Meeting, May 23, 1928

1. The Reliability of the Schick Test and the Duration of Natural and Artificial Immunity in Diphtheria—C. A. Earle.

Discussion—Archibald Hoyne, F. O. Tonney, M. L. Blatt, Stephen V. Balderston.

2. Pre-malignant Disease of the Sigmoid and Rectum (Lantern Slides)—Clement L. Martin.

Discussion—Frank A. McJunkin.

HENRY COUNTY

The annual meeting of the Henry County Medical Society was held in Kewanee, Thursday, May 3.

In the afternoon from 1:30 to 5:30 P. M., a Cancer and Heart Clinic was held at St. Francis Hospital, which was fairly well attended; however it is discouraging to your officers to note the absence of a number of our members who should have been present. Dr. Henry Schmitz presented six cancer cases for diagnosis and treatment, while Dr. Charles Spencer Williamson presented seven heart cases for diagnosis and treatment. While this was our first clinic assembly, we feel that a profitable afternoon was spent with these cases, and if it is the wish of the members your secretary will try to hold them annually.

In the evening at the Parkside Hotel a 6 o'clock dinner was tendered our guests, thirty-five being present. Following the dinner, Dr. William D. Chapman, Silvis, Ill., Councilor Fourth District, gave a talk on Medical Organization.

At 8 P. M. at the Kewanee Public Library assembly room our Scientific Program was presented:

"The Commoner Types of Organic Heart Disease and Their Management," by Charles Spencer Williamson, Chicago.

Dr. Williamson's paper was well received.

"The Diagnosis, Prognosis and Indication for Treatment of Carcinoma of the Uterine Cervix," by Dr. Henry Schmitz, Chicago.

Dr. Schmitz' paper was both instructive and interesting.

At the business meeting, following the above program, the following officers were elected: President, Robert H. Stewart, Galva; vice-president, G. H. Hoffman, Kewanee; secretary and treasurer, P. J. McDermott, Kewanee. Board of Censors: Chairman, Charles A. Young, Geneseo; H. W. Waterous, Galva; John T. Boswell, Kewanee.

Delegates to the Illinois State Medical Meeting for the years 1928 and 1929: P. J. McDermott, Kewanee, delegate; J. A. Gustafson, Orion, alternate.

Four new members were elected at this meeting, and the resignation of Dr. Hugh Hover, Galva, from the society was accepted. Dr. Hover was requested to resign due to his unethical advertising in the local papers.

Members of the profession were present from Kewanee, Galva, Cambridge, Orion, Geneseo, Galesburg, Atkinson, Wyoming and Toulon.

P. J. McDermott
Secretary.

Marriages

Cyrus H. Anderson, East Moline, Ill., to Mrs. Florence E. Ervin of Biggsville, at Cedar Rapids, Iowa, April 24.

William G. Beek to Mrs. Mae Fox, both of Chicago, May 8.

Joseph E. Jensen, Momence, Ill., to Miss Aimie L. Bigelow, February 22.

Walter H. Milbacher, Aurora, Ill., to Miss Mary Jane Benson of Joliet, in Chicago, January 11.

Francis Perry Hammond, to Miss Marguerite Helen Conrad, both of Chicago, May 16.

Alexander P. Horwitz, to Mrs. Harriet M. Parkhurst, both of Roswell, N. Mex., April 21.

Personals

This issue of the Journal carries the portrait of Doctor John E. Tuite, President of the Illinois State Medical Society, as a supplement.

Dr. Robert F. Lischer, Mascoutah, recently gave a lecture at the Mayo Clinic, Rochester, Minn., on "The Country Doctor."

Dr. Albert E. Bulson, Jr., Fort Wayne, Ind., addressed the Physicians' Fellowship Club, May 25, on "Medical Economics or the Physician as the Goat."

Dr. Edwin L. Winslow, who has resided in Danville for about twenty-five years, recently became assistant surgeon at the National Military Home, Dayton, Ohio.

Dr. Harry E. Marselus, formerly on the staff of the Peoria State Hospital, is now assistant managing officer of the East Moline State Hospital.

Dr. William A. Evans, professor of public health, Northwestern University Medical School, was guest of honor at the opening exercises of cancer week in Boston, April 23; his subject was "Cancer Control."

E. S. London, professor of physiology, University of Leningrad, gave two illustrated lectures under the joint auspices of the Institute of Medicine of Chicago and the University of Illinois College of Medicine, May 3-4, on "Experimental Fistulas of Blood Vessels" and "Enzymes, Hormones and Vitamins."

Doctor and Mrs. A. M. Earel of Hoopeston have recently returned from a pleasant three-months' trip through South, Central and Eastern Africa.

Dr. A. M. Petersen Saunders read a paper before the Chicago Pathological Society at the May meeting entitled: Fluctuations of the hydrogen-ion concentration of saliva in epilepsy.

News Notes

—The medical staff of the University of Illinois School of Medicine gave a dinner at the Medical and Dental Arts Club, May 25, for the senior class.

—The dermatologic department of Northwestern University gave a dinner to Dr. and Mrs. Arthur W. Stillians, May 14, at the Medical and Dental Arts Club prior to their departure for Berlin and Vienna.

—The new $600,000 Woodlawn Hospital, Sixty-First Street and Drexel Avenue, was opened, May 23. It has a capacity of 140 beds and is said to be owned by 500 persons, of whom fifty are physicians.

—A symposium on the toxic thyroid was presented before the Chicago Society of Internal Medicine, City Club, May 28, by Drs. Joseph L. Miller, Anton J. Carlson, Charles A. Elliott, Harry M. Richter and Edward L. Jenkinson.

—A campaign is being conducted for funds to construct the new Pentecost Hospital for negroes, which will be on the south side. It is to be a Catholic sisters' hospital; Cardinal Mundelein, who gave $5,000, made the first contribution.

—The speakers at the May 24 meeting of the Chicago Urological Society, 50 East Erie Street, Drs. Charles B. Huggins, W. J. Carlson, Jacob Meyer, Daniel N. Eisendrath and Edwin W. Hirsch, and W. J. Carlson, Milwaukee.

—The secretary of state has been requested to issue a letter of credentials to Dr. Gilbert Fitzpatrick, Chicago, lieutenant colonel, medical reserve corps, designating him as unofficial representative of the medical department, U. S. Army, at the International Congress of Tropical Medicine and Hygiene to be held in Cairo, Egypt, December 15.

—The local officers of the medical reserve corps of the army gave a dinner at the Medical and Dental Arts Club, May 16, in honor of Col. Clarence J. Manly, corps area surgeon, and Major Henry C. Bierbower, who have generously assisted in conducting the reserve officers' training school during the year.

—A joint meeting was held at the City Club, May 25, under the auspices of the Institute of Medicine and the Society of Experimental Biology and Medicine of Chicago devoted to the presentation of work by Chicgo investigators. The program included nine presentations from the University of Chicago, University of Illinois and Northwestern University.

—The annual meeting of the Chicago Neurological Society was held at the Billings Memorial Hospital, May 17. Among others, Drs. Anton J. Carlson, Arno B. Luckhardt, Dallas B. Phemister, John Favill and Roy R. Grinker spoke. The president of the society invited the members to be his guests at dinner at the Shoreland Hotel.

—At the regular meeting of the Chicago Gynecological Society, May 18, Murphy Memorial Building, Drs. Russell A. Scott, Evanston, spoke on "Hemiplegia During Pregnancy"; Ralph A. Reis, "Induction of Labor," and Abraham F. Lash, "Puerperal Fever IV: The Therapeutic Value of a New Concentrated Streptococcus Antitoxin."

—Since February 20, the state department of health has distributed toxin-antitoxin prepared with goat serum instead of horse serum and this policy will be continued in the future. The department of health made the change to remove any possibility of sensitizing an individual who might previously have been administered horse serum. Every possible danger of sensitization, the department says, now has been removed.

—At its regular meeting, May 1, the council of the Chicago Medical Society adopted a resolution disapproving use of the words "clinic or institute" in the name of partnerships formed by physicians for the purpose of practicing medicine for profit either in a limited field or in all its branches. This action was taken following inquiries as to the propriety of physicians forming a partnership to practice for profit and designating it a "clinic or institute."

—The staff of St. Anthony's Hospital, Rock Island, held its first annual clinic, April 25, to which physicians from surrounding counties were invited. Among others, Dr. Arthur R. Elliott, Chicago, discussed coronary sclerosis; Dr. George L. Eyster, Rock Island, one of the original members of the hospital staff since its founding in 1893, summarized the history of the institution; Dr. George W. Hall, Chicago, spoke on "Tumors

of the Brain"; Dr. Karl A. Meyer, Chicago, acute abdominal conditions, and Dr. Nathaniel G. Alcock, Iowa City, interesting urologic cases.

—About fifty physicians and nurses, assigned to health inspection work in the schools, were dismissed, May 1, it is reported, by the Chicago health department because of shortage of funds. These employees had been paid prior to that time from the funds of the Municipal Tuberculosis Sanitarium when they were shifted to the health department. A local philanthropist offered to pay the salaries of these employees until the end of the school year, but the chairman of the finance committee of the city council said that the committee would raise the necessary funds for these employees by a transfer from a less important appropriation.

—Henderson County Medical Society passed the following Resolutions of Respect:

WHEREAS, The Great Physician of the Universe has called Doctor William Jesse Emerson from his labors here; and

WHEREAS, the intimate relations of the members of the Henderson County Medical Society and their faith in his executive abilities induced them to elect him to the highest office in the society, which he held for several terms therefore be it

Resolved, that his services as a member of our County and Illinois State Medical Societies, a good citizen and a kind physician to many sick and afflicted, will be held in grateful remembrance.

Resolved, that the Henderson County Medical Society extend to the bereaved wife, son, daughter and aged father our sincere sympathies; and commend them to the great source of consolation and love, Whose power alone is able to protect and sustain them.

Resolved, that these resolutions be entered on our records, a copy be presented to the family and copies be furnished to The Stronghurst Graphic. The Henderson County Journal and The Lomax Searchlight for publication.

Deaths

ALBERT WALKER BIBB, Chicago; Meharry Medical College, Nashville, Tenn., 1916; aged 42; died, February 20, of chronic nephritis, heart disease and arthritis.

WILLIAM SHERMAN BRACKEN, Chicago; Northwestern University Medical School, Chicago, 1902; formerly clinical assistant in laryngology and rhinology at his alma mater and clinical professor of ophthalmology, Loyola University School of Medicine; aged 61; died, April 18, at the Chicago Fresh Air Hospital, of bronchopneumonia.

WILLIAM HENRY DALEY, Chicago; Harvey Medical College, Chicago, 1903; University of Illinois College of Medicine, Chicago, 1909; aged 53; died, April 23, at the Mercyville Sanitarium, Aurora, Ill., of chronic arachnoiditis with cyst formation.

WILLIAM JESSE EMERSON, Lomax, Ill.; Rush Medical College, Chicago, 1888; a Fellow, A. M. A.; president of the Henderson County Medical Society; county coroner; aged 59; died, May 2, at the Burlington (Iowa) Hospital of coronary sclerosis.

FREDERICK HENRY DANIELS, Batavia, Ill.; Medical School of Maine, Portland, 1882; superintendent of the Bellevue Place Sanitarium; aged 73; died, March 19, of cerebral embolism.

CHARLES HENRY FREDERICKSON, Chicago; Hahnemann Medical College and Hospital, Chicago, 1918; aged 39; died, April 17, of bronchopneumonia.

CYRIL JOSEPH HODAPP, O'Fallon, Ill.; St. Louis University School of Medicine, 1925; a Fellow, A. M. A.; aged 29; died suddenly, April 30, of heart disease.

GEORGE L. JOLLY, Chicago; College of Physicians and Surgeons, Baltimore, 1883; aged 72; died, April 13, of organic heart disease.

SIDNEY CONDON MARTIN, Anna, Ill.; Chicago Medical College, 1884; a Fellow, A. M. A.; formerly member of the city board of health and board of education; formerly on the staff of the Hale-Willard Hospital; aged 77; died, April 10, of heart disease.

EDWARD LOUIS MOORHEAD, Chicago; Rush Medical College, Chicago, 1890; a Fellow, A. M. A.; professor and head of the department of surgery, Loyola University School of Medicine since 1920; assistant clinical professor of surgery, Rush Medical College, 1894-1904; clinical professor of surgery, Northwestern University School of Medicine, 1917-1920; attending surgeon, Cook County Hospital, 1893-1904; president of the medical board, Cook County Hospital, 1898-1901; surgeon to St. Anthony de Padua Hospital, 1897-1917; chief surgeon to the Mercy Hospital since 1917; consulting surgeon to the Misericordia St. Bernard's and the Oak Park (Ill.) hospitals; aged 64; died, April 26.

JOSEPH REILLY, Chicago, St. Louis Medical College, 1872; member of the Illinois State Medical Society; Civil War veteran; aged 79; died, May 2, at the German Deaconess Hospital, of myocarditis and diabetes mellitus.

WILLIAM STORCK, Chicago; University of Illinois College of Medicine, Chicago, 1901; a Fellow, A. M. A.; aged 61; died April 22, of bronchopneumonia.

EMIL ERNEST TORELL, Chicago; Northwestern University School of Medicine, Chicago, 1907; aged 46; on the staffs of the Lakeview Hospital and the Ravenswood Hospital, where he died, April 23, of complications following an operation for appendicitis.

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